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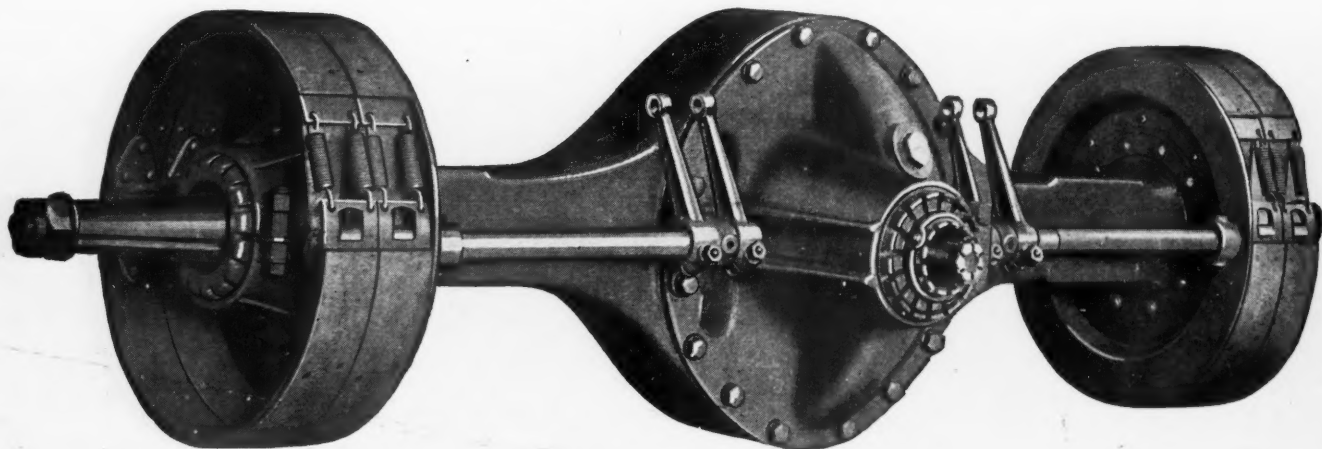
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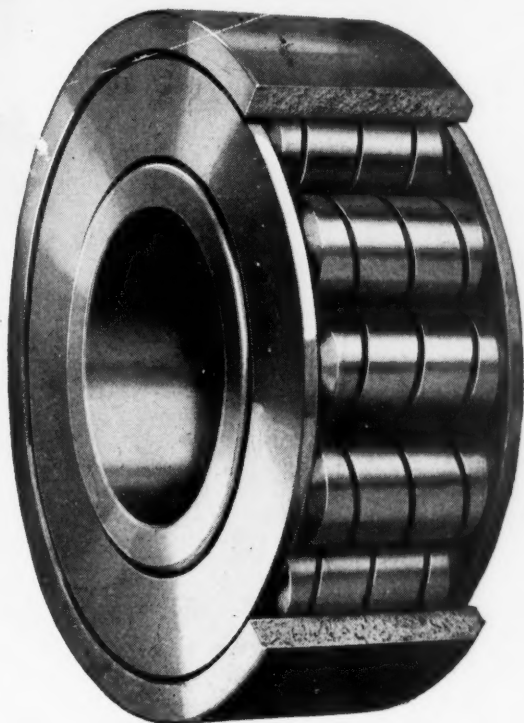
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THE COMMERCIAL CAR JOURNAL

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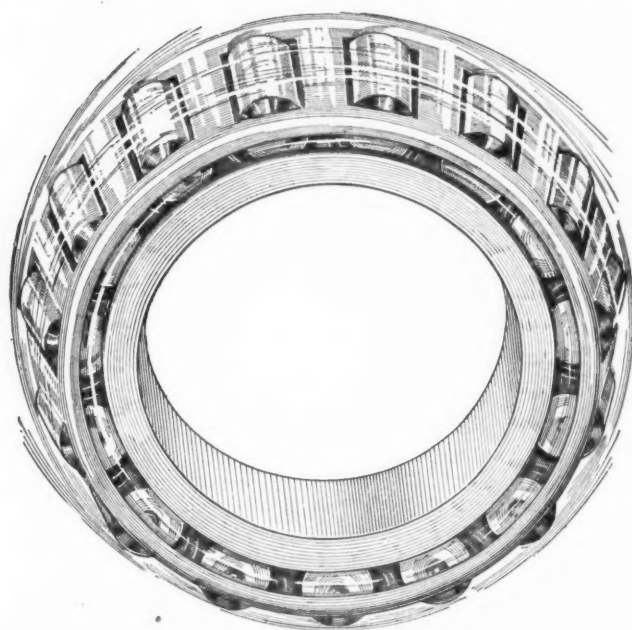
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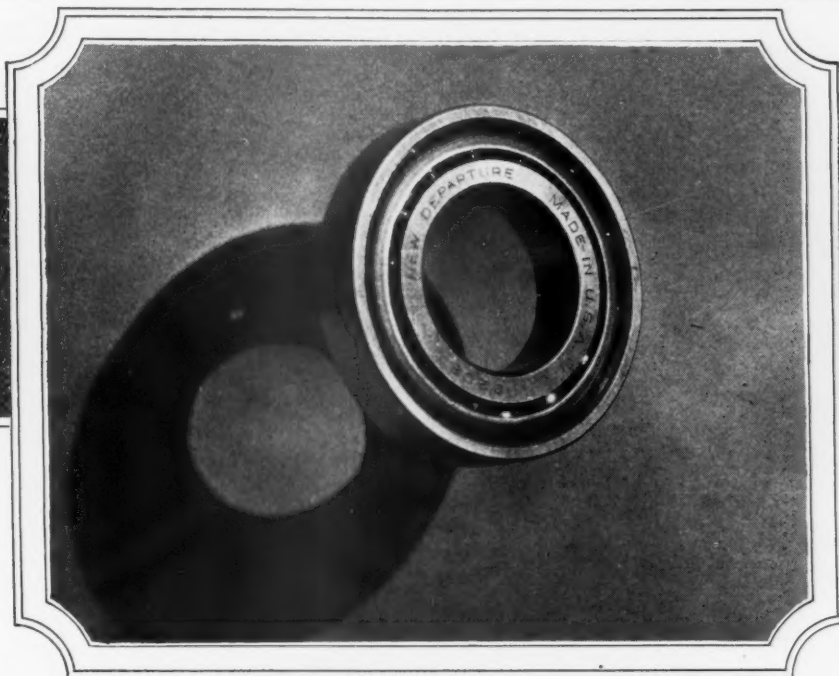
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Rear View of Model SD
with Gravity Dump Body

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The Commercial Car Journal

VOLUME XXXI

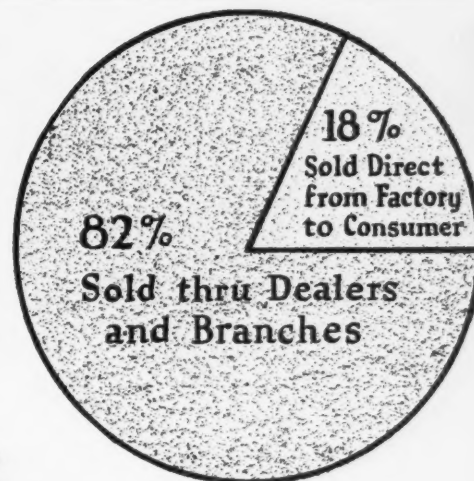
PHILADELPHIA, MARCH 15, 1926

NUMBER 1

Buses { Who Sells Them? Who Buys Them?

82 % Sold by Dealers and Branches

92 % Bought by Independent Operators



How they are sold

tors with less sales per operator, rather than concentrating on the traction companies, where sales, when made are large. This tendency is indicated clearly by the fact that only 4 out of the 28 bus makers included in our survey sold more than 50 per cent of their 1925 output to traction companies. Of these four, only one ranks among the first five in production of buses.

On the other hand, 17 of these producers sold anywhere from 70 to 100 per cent of their 1925 output to independent operators. And included in this group are three of the leading builders of the heavier buses.

Replacements Just Starting

The replacement market is just beginning to be of importance in the bus field and will consume a larger part of the total output in 1926 than ever before, although it is reasonable to expect that new business will constitute a major proportion of bus sales for many years to come. A good share of the replacement market at present probably consists of buses sold to operators who heretofore have been using adapted trucks.

The question of education of bus salesmen is a problem which will receive much attention from manufacturers and dealers. A special knowledge of passenger transportation problems is essential for a successful bus salesman, in the opinion of some executives who have studied this phase of the question. Many of the questions arising are in fields new to operator, salesman and dealer.

That dealer and branch house organizations will have the opportunity and the responsibility of selling the greater proportion of buses for some years to come is clearly indicated in our recent survey. This will be true unless there be some drastic change in marketing methods, which is unlikely.

EIGHTY-TWO per cent of all the buses manufactured in 1925 were sold through dealers and branches.

Ninety-two per cent of all buses now in operation are being used by independent operators.

The present trend of bus marketing methods indicates that a very considerable proportion of total bus production will be distributed by channels previously used in the car and truck field.

These conclusions are based on reports, just received from 28 leading bus makers, and analysis of other statistical data. They reveal a situation little recognized.

14,350 buses were sold last year by dealers and branch houses and the factory-to-user sales amounted to approximately 3,150 of the total sales of 17,500 buses last year.

Established Channels Best

Eighty to one hundred per cent of entire output is marketed through dealers and branches by a large group of bus manufacturers, including two of the three largest bus builders in the country. This is true despite the fact that a few important bus makers do contract directly with customers on many sales.

Only 21 per cent of the bus makers

are selling exclusively direct-to-user, 50 per cent are distributing solely through dealers and branches and the remaining 29 per cent are availing themselves of both marketing methods. This division is estimated from returns from a large number of representative concerns and it is reasonable to consider their reports as typical of the entire bus industry.

Manufacturers of buses who have already built up retail sales organizations for their lines of trucks or passenger cars are using these facilities for the sale of buses. Direct factory-to-user sales are lacking.

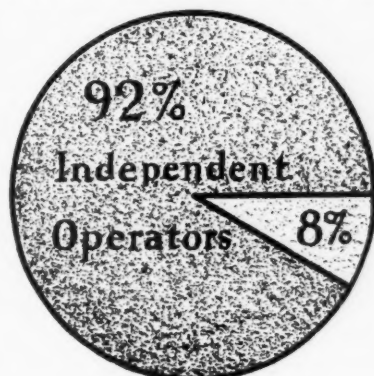
A new light has been thrown on the whole question of bus marketing by an analysis of the practices actually used in distributing the 17,500 buses built in the United States last year. The success of a few well known companies in their method of selling direct from factory-to-user has given rise to a widespread impression that this was the prevailing channel of distribution. But, according to the figures at hand, only 18 per cent of the buses were sold direct to users. The survey clearly shows that the impression is not well founded.

Sales of the Future

A considerable proportion of the bus sales of the future will be made outside the metropolitan areas, according to evidence now coming in, at this early stage of bus development. The largest market for cars and trucks has been found in towns and cities of less than 25,000 population and the same condition will, no doubt, develop in bus marketing.

The fact that more than 90 per cent of the buses now in operation have been sold to independent operators and that a majority of these operators are doing business in the smaller towns, rather than the large cities, is an indication of the extent of this trend.

A large majority of the bus manufacturers already are concentrating their efforts on making sales to more opera-



Where they go

South African Operators Say

America is Busman's Paradise

Unlike Africa America Has Low Priced Gasoline, an Appreciative Public and Good Roads. However, Despite Inherent Difficulties African Bus Popularity is Growing

By M. Edward

Johannesburg, South Africa

TO the South African bus operator conditions in America would appear to approximate the ideals of his wildest dreams. He would think that all his troubles had vanished and that he could embark upon a policy of expansion that would be paid for by profits made in operation. But it is quite evident to the visitor in America that this does not exactly seem to be the opinion of the bus operators in the land of low-priced gasoline, appreciative travelling public, and good roads. However this may be, it is surprising to know under what difficulties motor buses are run in other parts of the world.

Imagine gasoline at between 50 and 80 cents a gallon, tires at 33 per cent more than in America, and fares very little, if any, higher, in some cases actually lower. The American operator may reply that competition is keen in his part of the world, that there are electric railways to fight and city and state Government opposition to be combated. The same thing holds good in South Africa where the bus operators are at present

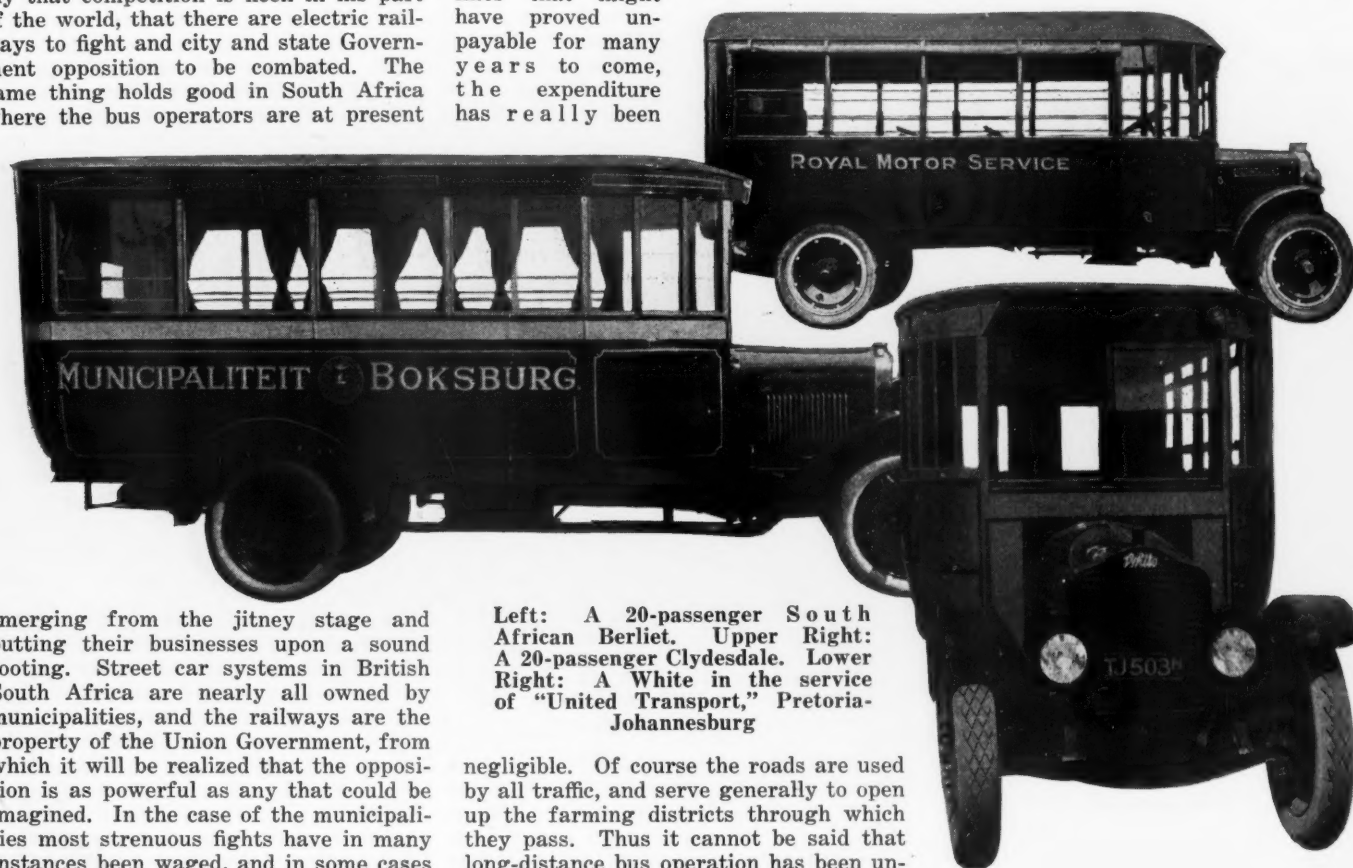
the city governments have definitely made private operation unprofitable by installing their own bus fleets. In the inter-urban and long distance field the Government has not been asleep, and has really forestalled private ownership by the inauguration of a system of country lines that started in operation late in 1925.

Carry Passengers and Freight

These lines are operated by the railways, and as they are run on a purely business basis, the venture cannot be classed as a socialistic one. The South African Railways Administration has always been to the fore as regards mechanical road transport and South Africa owes a great deal to it. The new country bus lines called for the building of many miles of dirt roads, but as these practically took the place of branch railway lines that might have proved unpayable for many years to come, the expenditure has really been

duly favored in South Africa. Attention has been paid to requests from various parts of the Union for road motor services, but for a beginning the Province of the Transvaal has been selected, and the system is to be extended during 1926 and 1927 if payability is proved. And there is every reason to believe that this is assured. The area of the Transvaal is 110,450 square miles, and there is much land awaiting development that will benefit by the bus services which handle passengers and freight. Seventeen routes have been started.

Most of the road motor services, as they are called, start out from medium sized country towns situated on the railway and connect up with small villages at distances from 10 to over 100 miles away. Farmers were asked to cooperate and a thorough canvass of the districts to



Left: A 20-passenger South African Berliet. Upper Right: A 20-passenger Clydesdale. Lower Right: A White in the service of "United Transport," Pretoria-Johannesburg

emerging from the jitney stage and putting their businesses upon a sound footing. Street car systems in British South Africa are nearly all owned by municipalities, and the railways are the property of the Union Government, from which it will be realized that the opposition is as powerful as any that could be imagined. In the case of the municipalities most strenuous fights have in many instances been waged, and in some cases

negligible. Of course the roads are used by all traffic, and serve generally to open up the farming districts through which they pass. Thus it cannot be said that long-distance bus operation has been un-

be served was made —just as would be done by any business concern. I am mentioning this to show that what has been done by the Railway Administration in Southern Africa could be attempted by private concerns wishing to start systems of bus lines in "blackveldt" districts of America. At the outset it was decided by Major Frank Dutton, who has been in charge of railway motor transport for many years, that a light type of speed vehicle would be necessary, but other types are being experimented with as well. Twin rear wheel equipment is used.

The bodies were built in Johannesburg, the railway people giving out this contract for the fifty buses, it being a policy to place as much business with private firms as possible. The design of the bodies for accommodation for from ten to twelve passengers and approximately 1000 lbs. of freight. For the few lines that operate partly in the larger cities —such as those on the outskirts of Cape-town and Johannesburg—a good-looking town-type of body for passengers only has been built, and special trucks are run for freight. The country vehicles are purely utility propositions, however, and while workmanlike in appearance and comfortable for passengers, are by no means luxurious parlor cars. The average speed maintained on the country roads is not high, for many stops are made, and very often grades are severe.

The transport department of the S. A. R. controls the bus services, and while tickets are sold at all railway stations as well as by the drivers, revenue and costs are kept separate from those of the railway. Drivers have to be skillful, and must have a certain amount of mechanical knowledge—essential where distances are long and the country sparsely inhabited. There is one man on each bus and he, of course, has to look after fare collections and freight charges. There are workshops at each end of the long distance runs, and sheds are erected for this purpose. Repair-shop equipment is as complete as is thought necessary, including power lathes and all necessary tools for coping with breakdowns. Besides this, in special cases, the railway workshops at Johannesburg, Pretoria and Kimberley are at the disposal of the buses if this should ever be necessary.

Operation Costs High

Drivers wages are on the average about \$5 a day of eight hours, and the men have to be able to speak Dutch as well as English as the Union of South

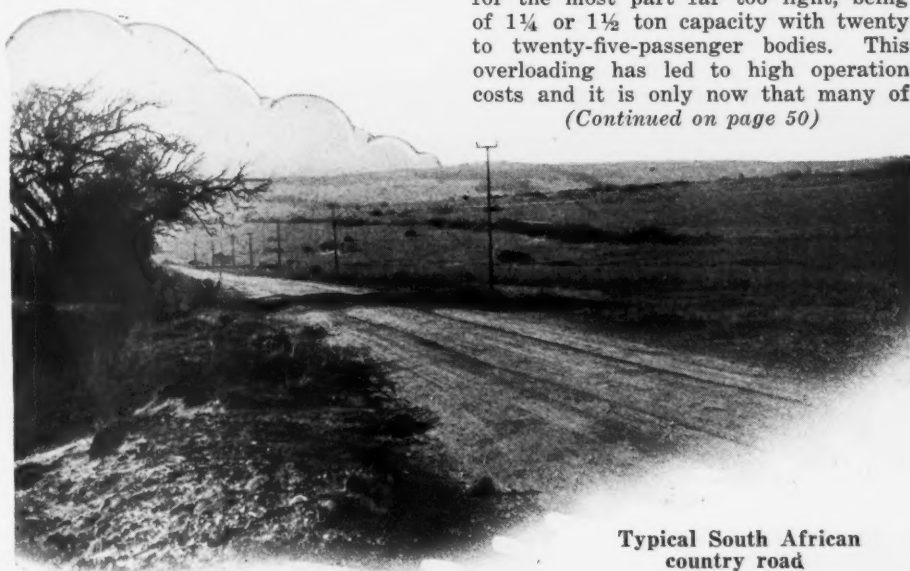


Interior of a 20-passenger Reo used in South African service

Africa is a bi-lingual country. Local authority for the control of the services is vested in superintendants who watch workshops and bus operation. In some cases the superintendent may undertake some of the workshop duties.

20 Per Cent Depreciation

Operation costs are necessarily high, especially with gasoline at from 50 cents a gallon up. Tire costs to the Government Railway Transport Department are not so much less than to the ordinary bus operator, as a policy of buying supplies in the ordinary wholesale market is often adhered to. The depreciation of vehicles is generally taken over a period of five years—this in spite of the comparatively rough roads and the heavy work to be performed. The fares on these country services are high, being between six and eight cents a mile. Handbags may be carried by passengers without extra charge. The freight carried in the buses is chiefly composed of such commodities as cream, eggs, butter, poultry and fruit and the charges are approximately 1 cent a mile for every 25 lbs. As mentioned before these services are soon to be extended to other Provinces in the Union.



Typical South African country road

In the cities, the position although chaotic, proves the possibility of operating buses under conditions far more costly and difficult than in the United States. I will give the situation in Johannesburg, the Union's largest city. There the population is 300,000, but the white or traveling public only numbers 163,000. The city is served by an excellent system of street-cars, municipally operated. Average speed of 10 m.p.h.

is maintained on this system, and the express cars do as high as 18 m.p.h. This, of course, means that buses have to be tuned up accordingly. The present bus movement is only about three years old in Johannesburg, although as far back as 1913 the Municipality owned a small fleet of some half dozen petrol-electric vehicles that were used as feeders to the street-cars. These fell into disuse. In 1922-23 the first motor buses began to appear on the streets of Johannesburg, being operated by private owners, many of whom drove themselves. The movement increased rapidly, many people quite unacquainted with motor transport considering that there were big profits to be made in this direction. Naturally numbers of them were disillusioned, and gradually the consolidation of bus fleets and interests that was a feature of operations in the early stages in America came about. Although still emerging from the jitney stage, Johannesburg bus fleets to-day consist of from four to ten vehicles, and there is evidence that further amalgamations will take place.

Incorrect Design

The type of bus used has been wrong up to quite recently. The chassis are for the most part far too light, being of 1¼ or 1½ ton capacity with twenty to twenty-five-passenger bodies. This overloading has led to high operation costs and it is only now that many of

(Continued on page 50)

Cheaper Transportation Points the Way to Increased Sales

Efficient Maintenance Service Solves the Used Vehicle Problem

To contend that prolongation of vehicle life indefinitely means curtailment of new sales is short thinking. Fleets cannot grow and be successful with excessive maintenance costs.

By H. Lionel Williams

port contractors from whom the dealer derives his new truck business, or does work more cheaply for competitors of houses owning their own fleets. True, these fly-by-night operators are short-lived, but while they do exist they do some damage.

Operator Success

TO keep his vehicles as long as possible and to maintain them at the lowest possible cost during that period, is the aim of the average fleet owner. When he considers that maintenance or operating costs have grown excessive, he trades the vehicles in for the biggest allowance he can get and starts all over again. More often than not he buys his new vehicles from the dealer or factory branch offering the largest allowance or most attractive terms. This means that, every two or three years, an operator dumps on to the used vehicle market a machine that has to be sold at a loss to the dealer, and contributes to the steady stream of second-hand vehicles that clog the flow of trade.

Someone buys these old vehicles at a low price on easy terms, and enters into competition with other trans-

Now if it can be made possible for a motor vehicle operator to buy a machine at a reasonable price, and to operate that machine for an indefinite number of years at a reasonable cost, such cost being approximately the same at the end of 100,000 miles as it was during the first 10,000, not only will the cost of transportation be lowered, but the used vehicle situation will be relieved; more operators will be successful in a permanent way, and individual transportation cost will be

Selling transportation on a performance basis should be the aim of all dealers. It is fundamentally more sound than selling a vehicle of problematical performance or first cost.

lowered, thus tending to a wider market in the truck and bus fields.

It is therefore to everyone's benefit that the cost of motor vehicle operation and maintenance be lowered, and that this reduction be prolonged over the entire life of the vehicle.

It might reasonably be contended that to prolong the life of a vehicle indefinitely is to curtail the sale of new vehicles, but this is a short-sighted viewpoint. Fleets only grow when the business they serve is successful, and such success is diminished according to the drain on the financial resources occasioned by the operating costs.

Apart from that, the selling of transportation on a performance basis



is fundamentally more sound than selling a vehicle of problematical performance on first cost cost.

Then there is a second issue—the establishment of definite maintenance costs, and the minimizing of time lost through repairs. If these things can be secured, a great advancement will have been made in the stabilization of the industry by the creation of a sound competitive basis for sales, and the substitution of facts for guesswork in buying.

How then can these things be accomplished?

Here are some facts that may afford a clue to the solution. First, what does it cost to repair a truck and how much time is lost in carrying out those repairs? To be quite fair we should take figures covering fleet operation over a number of years, so that the actual cost of repair covers practically the whole life of any one vehicle.

An unusually successful fleet operator, handling several hundreds of trucks, many of which are over ten years old, provides the following figures:

Days Operated	Days Under Repair	Av. Maint. Cost
2493	251	\$9.17 per week
2193	336	16.51 " "
1552	141	8.91 " "

An average of over 10 per cent of the time lost for repairs, and an average expenditure of \$600 a year on each vehicle. In passing, contrast this with the repair business secured by a prominent Chicago dealer whose income from this source averages only \$11.77 per vehicle per year!

Low as the above figures are, they are not as low as they would be if (a) the repairs were up to factory standard, (b) if the repair shops were organized on a production basis. The latter is practically never possible in the shops of private users.

Volume Cuts Cost

Whatever repair methods and equipment are employed, volume will always help cut the costs. Where labor or equipment is idle, the overheads mount up, and this is a condition to which private repair shops are particularly prone. The smaller the fleet the more inefficient the maintenance



Lowering the desired fruit within reach

service, and the greater the overheads, as a rule. First a slack period and then a rush one, and each mechanic doing first one job and then another, switching about before he has time to study in detail one operation and so become proficient at it.

Semi-efficient help is therefore the rule rather than the exception in the small shop and the result is poor work at high cost. Similarly the greatest efficiency is secured by the large repair station, fully equipped and manned by specialists in various operations. Such a shop would handle a large number of vehicles and at all times work as near to capacity as possible. Factory quality of work could be insured so that low cost of repair would be combined with long life of rebuilt units.

Flat Rate Imperative

With an organization of this kind, a flat rate system of repair work would not only be possible but imperative. Each manufacturer would then see that the stations handling his products carried full lines of replacement units, so that rebuilds would be installed in quick time and the vehicles kept on the road.

This would be an extension of the present system whereby engine makers supply rebuilds for replacement at the cost of repairing the original unit—cutting the cost to the vehicle owner by as much as 50 per cent over home repairs, and, in some cases eliminating all time lost off the road.

In any such rebuilding scheme, the manufacturer could make an additional saving by using up some of his factory reject parts that have been thrown out for some slight defectiveness. For example, being a few

thousandths under size.

It is undoubtedly along these lines that the motor vehicle manufacturers will have to tackle the problem of cutting vehicle maintenance costs, and incidentally keeping the replacement parts business in their own hands. Whether such service stations are operated by manufacturers in connection with their distributing establishments or as controlled separate organizations is a matter of individual policy, but lower transportation cost is the undoubted solution to many present-day motor transportation,

operating and marketing problems, and it is up to the makers of the vehicles to follow that solution to its logical conclusion.

Oppose Space Restriction in Buses

Opposing restrictions which would cramp the space in motor buses, and seeking national standardization of bus specifications, the motor truck members of the National Automobile Chamber of Commerce at their recent meeting voted to name a committee to call together all parties interested.

Matters have been brought to a head by proposed action in a number of states which would require different types of construction for each state. George H. Scragg of Mack Trucks, Inc., reporting to the meeting on the situation pointed out that Massachusetts proposes shortening the length of buses. North Carolina and Florida now require six inches less width than other states and Connecticut demands special destination sign lights.

"Regulations for public protection and service are, of course, entirely proper," Mr. Scragg concludes, "but it is important to reach some basis of agreement among the various states if low cost transportation is to be continued. We believe that conferences with public officials, the American Electric Railway Association, the Bus Division of the American Automobile Association, the Society of Automotive Engineers, and other interested groups will result in specifications which will be both uniform and reasonable."

N. S. P. A. on the Job

The Merchandising Committee of the National Standard Parts Association are proceeding with the compilation of a Standard Accounting, Bookkeeping and Stock Keeping system for its jobber members.

1733

Salesmen: Are You Chasing

The Position at the End of the Rainbow is No Better Than Your Present Location. The Best Men Constantly Earn \$10,000, Because They Stay Fixed

By Leo T. Parker

Illustration by Peter Keenan

SOMETHING more than average sales ability is possessed by the salesman who successfully sells the same make of truck over a relatively long period of time. The average motor truck salesman has sold more than one brand. That is plainly evident, and to say the least it was wasted energy—especially when nothing is gained except a different boss. A new employer cannot guarantee increased commissions.

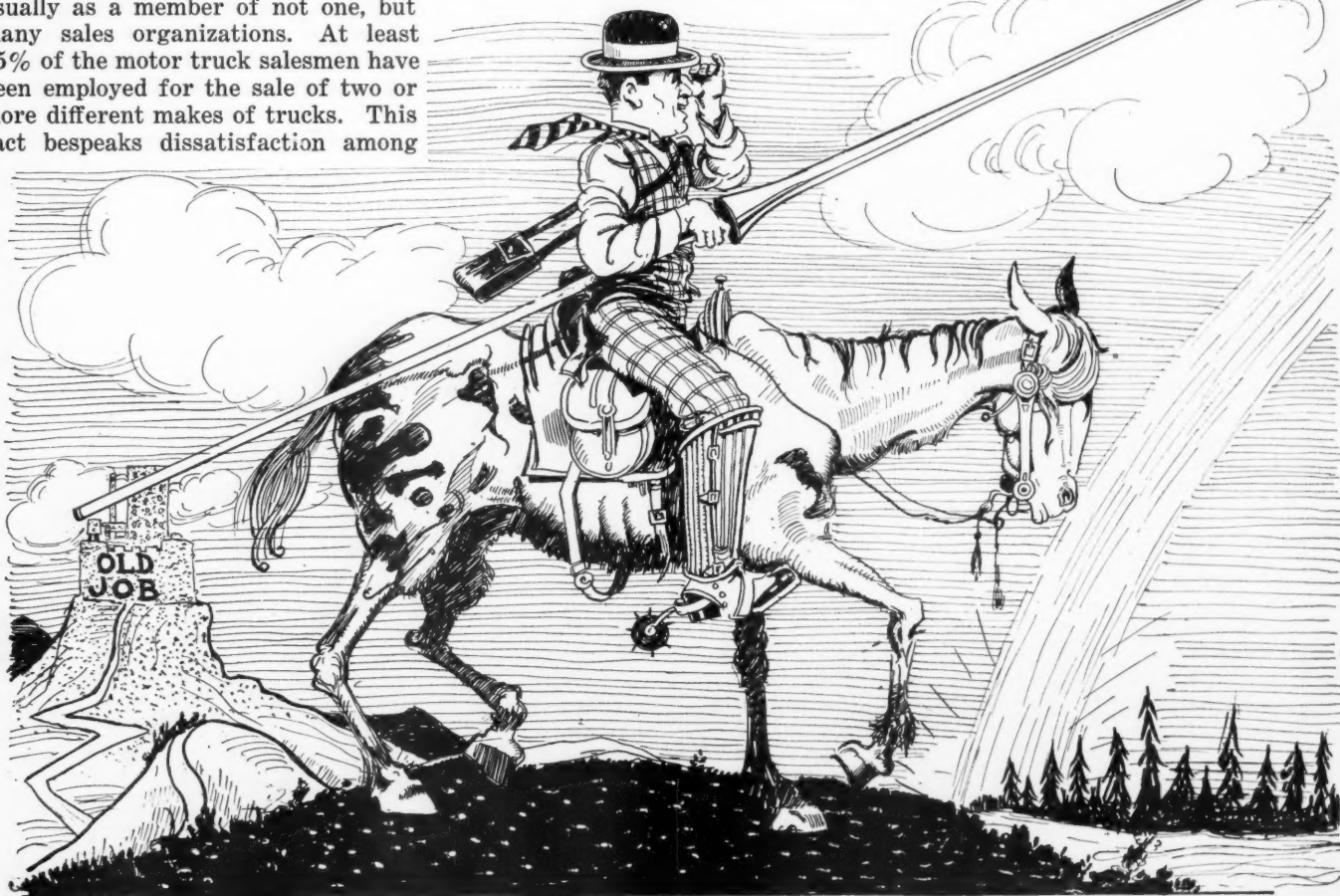
Selling motor trucks is an art. The average specialty salesman accustomed to selling a specialty in the class of "first getter," finds himself in an entirely new world of selling, when first he tackles the sale of motor trucks. Some last a couple of days some a few weeks, others stick for the remainder of their lives—but usually as a member of not one, but many sales organizations. At least 95% of the motor truck salesmen have been employed for the sale of two or more different makes of trucks. This fact bespeaks dissatisfaction among

the salesmen, because the employers are always satisfied if the sales volume nets a fair profit. It is almost impossible to discover a case where a producing salesman was discharged from a motor truck sales organization. Therefore the salesmen are the change desiring element, even though they are successful and produce a satisfactory volume of sales.

Truck Selling No Sinecure

Selling motor trucks is one of the most difficult lines of salesmanship.

Competition is keen; trade-ins are objectionable; bargains are driven; signed orders are not always so plentiful as to maintain enthusiasm. A knowledge of mechanics is essential. Versatility is important. Diplomacy is necessary to smooth over dissatisfaction as the result of mistakes in the service and repairs of older trucks. Personality is needed above all things. And so it is not strange that the best men in this business consistently earn \$10,000 and upward per year. The man who does not possess the requirements of a motor truck salesman must do one of two things, namely: cultivate or separate.

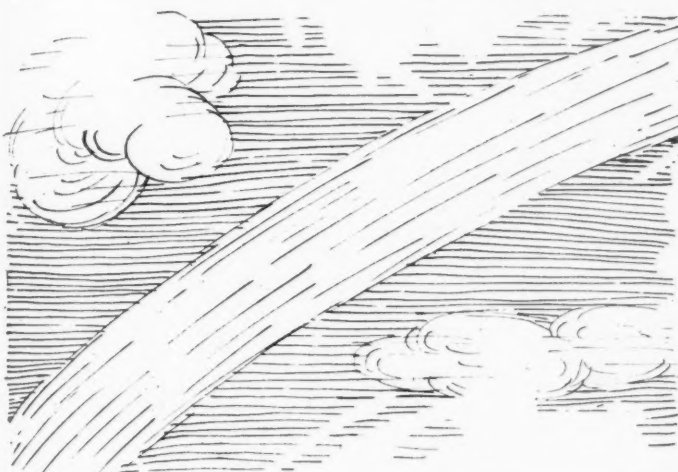
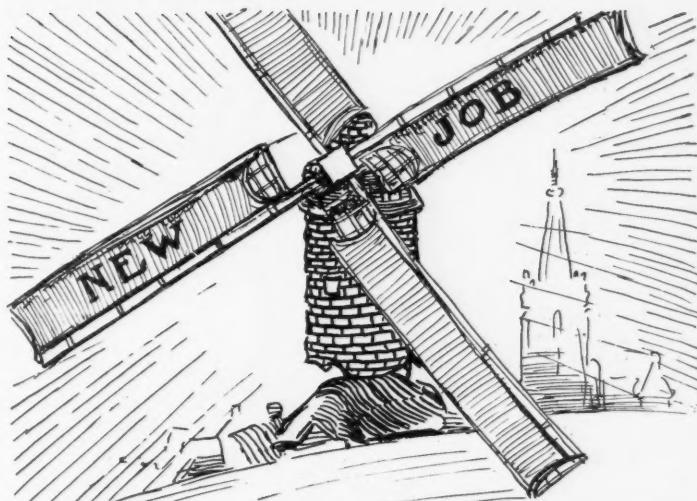


Rainbows?

How some of these successful salesmen go about their business, may be interesting to the salesman who is determined to stick and improve his salesmanship, rather than move about, trusting to good luck that the next loss may be better.

A salesman who has made good, declares that "the important thing is to realize just what you are doing to make each of your calls pay for the time and expense." Paying the prospects a lot of visits on a friendship

trucks that are going to be used and that I can not help being one of them, if I proceed in a constant and regular manner. Of course, I know the mechanism of the truck I sell.



basis may have some effect but will not result in a consistent business. The average buyer realizes that the truck represents a fair sized investment and quite naturally a salesman should impress the quality of the brand on each call, as well as keep prospect's friendship and good-will.

One of the most successful salesmen I know maintains an accurate record of each call he makes, together with exactly what transpired. He also keeps a neat system of important data and interesting information and never calls on a prospective buyer without presenting him with at least one constructive point or argument that registers. He says "I saturate my prospect with the good points of the truck I am selling, so that gradually he becomes enthused and realizes I am selling an honest value backed by a thoroughly reliable organization. Of course, I cultivate his friendship but above all I keep his respect, and never permit too much intimacy. I put in seven hours every day, and extra time during the evening hours."

I Work Hard

Another salesman who counted fifth in a recent national contest, says, "I work hard. I never worry. I figure some salesmen will have to sell the

if they are not thoroughly convinced, it will do no good to request their signature. That is my plan."

Common Failing

To each of these men I put the question "how many different makes of trucks have you sold?" All but one named three or more. The other one had sold only two. Through further conversation I came to the conclusion that each had chased a rainbow, except in one instance, where there was friction between the salesman and the sales manager. And so the position at the end of the rainbow proved no better than the original location. Each of these men stated that they were firmly of the opinion they could successfully sell any other motor truck, although each had his preference as to which might prove the easiest to sell—and no two of these men agreed on that one. Yet they all are high class men, and are recognized as such. But their pay envelopes tell the true story.

In my opinion, the chief reason why motor truck salesmen so often change positions is because of the discouragement brought on by unusual long intervals between profitable sales. Some men admit this, but many of them will not, and yet there must be some better

reason for the numerous changes as compared with other lines. Such a subject is sufficiently important to receive thorough investigations by the various truck manufacturers. All interested parties will profit by more stable employment arrangement. There is no question about that.

Numerous changes of the positions of very young men can be expected in their anticipation of better pay and advancement, but when it is considered that the great majority of motor truck salesmen are married, settled down and past simple youth, this common practice is noteworthy of the exceptional. Moreover, a change from one sales position to another of the identical kind cannot in any sense result in continued expectation of advancement and increased earnings. It, therefore, behooves salesmen of this class to *consider and reconsider before taking steps to follow the past routine* which makes for considerably less efficiency both from the agency and sales standpoint.

Generally Experienced

By an actual census taken of five years' registration and enumeration of a limited number of motor truck salesmen it was found that at least 35% of them are experienced traveling salesmen who have sold to the retail or jobber trade. Many of these men have accepted the motor truck line because it is a difficult selling proposition which apparently will remunerate satisfactorily, and permits the men to remain at home. So the class of salesmen are generally first class and experienced in the art of salesmanship. Probably the majority of the old and experienced traveling

(Continued on page 39)



Commonsense Equipment of a Service Station

Take Advantage of Local Facilities
and Cut Overheads, Says Manager

By Lionel H. Williams

Local facilities
make dollars

TOOL equipment costing \$8000 and a \$60,000 stock of parts are considered adequate to cope with the business for which the new Federal truck service station in Detroit is designed.

This service station, which forms part of the truck selling organization, is capable of handling 50 heavy-duty vehicles at one time. The tie-up between the two departments is particularly valuable to the repair section because the used truck department always has on hand a variety of vehicles to meet the needs of any customer who requires a truck to replace that laid up.

These used trucks, however, are not loaned but rented, and the customer to whom they are rented assumed all responsibility for damage due to collision or any depreciation other than natural wear and tear. The rental of these used vehicles is credited to the used truck department.

Forty Mechanics Employed

Forty trained mechanics are employed in the service station, 30 of them working on the day shift and 10 on night. In addition there are three inspectors, three foremen, four stockmen, two clerks and one washer.

Standard charges have been established for greasing and doping, and this work is done by the mechanic who happens to be working on the truck when this operation is requested by the customer.

To return to the tool equipment investment. The main items consist of a Wardell line reamer, a lathe, arbor press, grinder, drill press and a babbiting machine. This equipment was decided upon only after a thorough investigation had been made of the local facilities for getting high grade repairs done outside. In a city like Detroit there are naturally many specialists in various branches of repair work, and to take advantage of

their facilities is to reduce the overhead and increase the efficiency of the shop generally.

In this case, Edw. O'Donnell, the service manager, found he could conveniently 'farm out' repairs to magnetos, carburetors, vacuum tanks and governors, and such operations as the repair of cylinders and the regrinding of crankshafts. Rebuilding of engines is carried out by the engine manufacturer, and the axle assemblies by the maker of them.

Speed Up Repair Jobs

This arrangement works in very well with a system the company has inaugurated of, whenever possible, installing a service part so as to get the vehicle back on the road in the shortest possible time. The customer's part is then repaired and either put into the service stock or changed back as the owner prefers. Incidentally, it has been

found that there is sufficient revenue from the rental of these parts to make it worth while to carry the \$5000 stock of them. The service stock is based on a knowledge of parts which are likely to entail too great a delay and tie up the truck should they become damaged.

Since occupying the new service station four months ago, there has been an increase of business of more than 25 per cent, and it is still rapidly growing. The main difficulty, however, is not getting business but the securing of well-trained mechanics.

New Victor Bus

Victor Motors Company of East St. Louis, Ill., has just announced its entry into the bus manufacturing field. Its first bus came off the assembly line a few days ago.

This latest addition to the highway transportation equipment has a passenger carrying capacity of from 28 to 35 persons and is the heaviest of three types of buses designed by the engineers of Victor Motors.

The new bus which will be commercially known as Model 80-B has a wheelbase of 221 in. It mounts either a Pullman type 28-passenger or deluxe 35-passenger type of bus body.



Grammm Kincaid Model 848—series O, 152 inch wheelbase job

Furnished with either a 4 cylinder 4 1/2" by 5 3/4" engine developing 50 h.p. at 1350 r.p.m. or a 6 cylinder 3 3/4" by 5" engine of 70 h.p. An auxiliary gear reduction and four speed transmission gives eight forward and two reverse speeds.

Mileage Taken as a Standard of Measurement

Sells Tires and Wheels as Units With Insured Mileage on All Models

By George G. Oliver

ON the assumption that cushion wheels will at least double the life of a solid rubber tire, a Chicago wheel manufacturer is offering, to truck operators, sets of cushion wheels fitted with tires under an insured mileage scheme.

In the case of a 2½-ton truck the tires are guaranteed for 24,000 miles, and in that of a 1½-tonner, 30,000 miles, or two years of operation in both cases. The wheels are warranted perpetually, but in the cost estimates the value is taken as written off in ten years.

These estimates are underwritten by an insurance company, which puts the project on a business basis as far as the user is concerned. The evidence on which the insurance people adopted the scheme showed tire mileages varying from 35,000 to 70,000 miles with the cushion wheels.

Naturally, the wheels themselves are expensive, but the promoters of this scheme do not rely solely on the extra tire mileage to cover the cost. In their estimates they show considerable saving in maintenance cost of the vehicles, with reduced loss of time off for repairs.

Basis of Computations

Here is a sample of their figuring, for a 2½-ton truck fitted with S.A.E.

Guarantees to sell certain mileage

standard 36 in. wheels and tires. For the insured 24,000 tire miles over two years. the chassis maintenance cost is supposed to be reduced by 1¼ cent a mile, while the annual depreciation of the chassis and body, minus tires and wheels is estimated at 2½ cents a mile. This gives:

Chassis maintenance reduction.....	\$420.00
Depreciation saving	600.00
Tire makers' guarantee doubled saves	518.40
Total gross saving	\$1,538.40
From this must be taken:	
Cost of wheels (\$518) less salvage for old wheels (\$60) \$458.	
6 per cent on investment for ten years	\$274.80
Amortization for two years.....	91.60
Estimated saving in 2 years.....	1,172.00
	\$1,538.40

or a saving of 4.88 cents a mile per vehicle.

In promulgating this scheme it is apparent that the sponsors will be faced with two difficulties, one being to find operators having close enough track on their costs to determine the mechanical depreciation due to poor insulation, and secondly to discover such a company operating a vehicle on which it is possible to reduce the repair costs on the chassis alone in excess of \$200 a year. Apart from that, an investment of \$500 to double the tire mileage, or, as in the case quoted, \$362 a year, is certainly an attractive proposition.

Steelprest

The Heintz Manufacturing Co., Philadelphia, Pa., in publishing its booklet, "Common Sense in Steel Dollars," saved no expense or effort producing a booklet that at once attracts the eye and presents a precise presentation of fact.

Its many illustrations and concise statements carries the story which the Heintz Mfg. Co. offers in a very entertaining way. It informs the reader about welded, pressed steel and its application to almost every industry. It presents in a pictorial manner the various processes of fabrication. It also shows how by utilization of modern methods and by the combination of pressed steel parts with welding, the Heintz Co. is able to make parts that have hitherto been considered impossible.

The sales of Dorris Motors, Inc., St. Louis producer of motor buses and trucks, during January were larger than for any month in the company's history since 1919 according to H. B. Krenning, president of the company.



Crowds manifested great interest in the bus and truck display at the Kansas City auto show, Feb. 13-20

Entire area of pavilion given over to twenty-five exhibits of trucks and buses. Dealers said that buying was heavier than any previous show. Over 200,000 attended during a week of miserable weather.

The Maintenance Factor in Sales

Lower and More Definite Operating Cost the Demand

By H. Lionel Williams

WHAT, to the truck owner, is the most important factor in the utilization of a motor vehicle for business purposes? Offhand, most truck dealers would say the first cost, and they would have plenty of authority for that assumption. So many truck buyers lose sight of every other factor when making a purchase. The prevalence of this idea however, does not constitute its justification, it merely indicates a widespread error based on ignorance of operating facts.

Some years ago the idea was promulgated of selling transportation as opposed to the mere selling of trucks. This idea was impossible of universal adoption because the average buyer was not in the habit of keeping costs, and theoretical operating figures did not interest him. Furthermore these erstwhile horse owners either could not visualize the value of a \$5,000 investment in one vehicle or had not sufficient ready capital to allow them to take their choice of makes irrespective of first cost. Even those who knew better recalled the old adage about a bird in the hand and decided an extra six months to pay was better than a theoretical saving of a couple of cents a mile.

Then too, the ignorant buyer looked upon the truck much as he regarded his wagon. A truck was a truck as long as it had four wheels and a body and could be overloaded at will. Talking performance was, under these circumstances, a waste of time and effort. Price and cash down were the first and last considerations.

First Cost Not Last

Today things are somewhat different. Many operators have learned by bitter experience that first cost is not always last cost. Whether they apply this lesson or not is a different matter. The price juggling in the merchandising end of the business keeps them in a hypnotic state, deafened by the cries of 'more for your money' and 'bigger discount.' Fortunately for everyone, such a state of things cannot last indefinitely, and the time is rapidly approaching when the operator will insist on buying the transportation the dealer claims to sell. He will want to know what he is getting beside an assembly of steel, aluminum and wood, for his money.

Instead of selling on absurdly attractive terms, the dealer will have to guarantee low performance cost, and until that dealer or manufacturer has truck performance thoroughly analyzed from the factory to the junk pile, he will not be able to do this.

Does any dealer know what his vehicles are costing the operators in maintenance? Do any of us realize that if we would have the market to ourselves? could eliminate repair costs for two years? It has been possible to obtain the repair

What does it cost to maintain a truck? and maintenance costs of some trucks in a fleet which have been economically operated over a number of years. These figures are here given:

Capacity	Operated	Total Miles	Repairs	Cost of Tires	Miscellaneous	Total Cost	Cost Per Year
1-Ton	9	99,974	\$4,341	\$2,760	\$1,504	\$ 8,605	\$ 956
2-Ton	8	73,838	6,954	2,389	1,961	11,304	1,413
3-Ton	5 1/3	61,124	2,354	614	1,544	4,512	877

The item "miscellaneous" covers repairs sundries and items distributed over the fleet such as small supplies, cleaning parts for repair, etc. These figures however do not include the cost due to time lost while the vehicles are held up for repairs, which is an appreciable factor in most cases and a vital one in small fleets.

From the figures given above it will be seen that the cost of maintenance varies from nearly \$900 to 1400 a year. Naturally the cost during the first two years will be very much lower than this, but if the owner is calculating upon

selling the vehicle after that period he must also add a depreciation figure, so that the effect is the same.

Lower Maintenance Cost

It appears therefore that future progress in truck merchandising should be along the line of reduced maintenance cost, whether such maintenance is carried out by the owner or the dealer. This obviously means (a) lower parts prices,

(b) improved parts distribution to prevent loss of time in procuring them, (c) facilities for cheap repair work, (d) factory quality of repairs.

High-priced parts add to the cost of maintenance not only by virtue of the cost of replacement but from the fact that more capital is invested in the parts stock or less parts are stocked resulting in greater time loss when they are required. Similarly dissatisfaction ensues when parts are difficult to obtain. It is in the repair shop however that most money is wasted. In many cases the investment in staff and equipment to take care of five trucks is as large as that necessitated by a fleet of ten trucks. In such small organizations, and in many of the larger ones, too, repairing means merely patching or a temporary adjustment. Under such circumstances no operator can secure low cost of operation, which means that he makes less profit and buys fewer trucks. Anything that the manufacturer or dealer can do to reduce the cost of maintenance will tend to produce more sales of new trucks.

Who is going to shoulder the burden of this responsibility? the manufacturer, the dealer, or both? The manufacturer says his job is to make trucks, and in some instances to sell them also, and the dealer too has no time to set up an adequate and efficient repair station. But what of the other side of the picture? Why should the truck user have to be a truck manufacturer as well?

From whatever viewpoint the situation is examined it seems equally clear that the lower the maintenance cost the wider the market, and the organization to lead the way in selling maintenance at a low price will be the one to secure the attendant benefits in the merchandising end of the business.

You Consult the Specialists

The Engineer looks to the engineering magazines for his professional information.

The Doctor depends upon his medical journals.

The Banker reads his financial page.

The Dealer reads his trade paper for his trade information.

If you want to talk engineering matters to the engineer, medicine to the doctor, trade to the trader, you must use the publications devoted to their activities.

They are experts, they require expert information in their own language, relating to their own activities.

Reaching the trade through the trade press secures authoritative attention.

1926 Styles in Highway Legislation

Economic Needs of Transportation and Highway Conservation Recommend Load Distribution Over Additional Wheels and Longer Wheelbases

By Henry M. Wood, *Secretary, The Trailmobile Company*

SINCE heavy loads can be transported at less relative cost than light loads, the present movement is toward the building of larger and stronger commercial hauling vehicles, and highways able to resist the greater strains due to these heavier vehicles. Wise highway legislation, however, now recognizes the fact that there is a limit to the impact to which roads should be subjected, and that the best way to meet the needs of heavier hauling is to distribute the strain over more road surface by means of additional wheels, longer wheelbases and wider tires.

In protecting roads from injury by vehicles, it is not so much the weight of the vehicle and the load that counts as the way in which this gross weight comes in contact with the highway. The growing recognition of this principle is one of the most gratifying tendencies in highway legislation.

The realization of this principle is one of the causes for the increasing interest in the commercial trailer. Judging from reports from states where legislative sessions are held this year, one of the features of the new 1926 highway statutes will be amendments which will remove some of the difficulties which in some of these states now hamper the use of trailers on the most economical basis. These difficulties, for the most part, have been due to the fact that many of the present state laws were framed before the commercial trailer, a comparatively new development in automotive hauling, had fully demonstrated its road saving capabilities. In these states, trailer users in some cases have found it difficult to take advantage of maximum weight allowances because the trailer, especially the semi-trailer, has not received as much consideration as the more familiar truck.

State Laws Not Clear

Responsibility for this situation, where it exists, does not rest solely upon highway officials. In some instances it is due to the failure of haulers themselves to appreciate the economic features of trailer transportation, especially the way in which the use of trailers eases the burden on the highways. There is misunderstanding in some localities arising mainly from two sources—first, the failure of the highway laws to recognize trailers by clear and adequate definitions and, second, lack of appreciation of the contribution which the commercial trailer has made to the solution of traffic and

highway problems. While trailers are now generally recognized as separate units in the interpretation of highway weight restrictions, the lack of clear definition as to the nature of trailers and semi-trailers still causes some confusion. Only fifteen state laws now define trailers and semi-trailers separately, and not all of these definitions are perfectly clear.

Trailers Decentralize Weight

Most states have either a maximum axle allowance or a maximum wheel allowance based on inch widths of tires. Yet the semi-trailer-tractor combination, with two wheels more than the truck, is held in some states to the same gross weight maximum as the truck, in spite of the fact that a ten-ton net load carried on a semi-trailer-tractor combination weighs no more on any axle than a five-ton net load on a truck. Trailer manufacturers and users ask that the semi-trailer-tractor combination be permitted the gross weight allowed a four-wheel vehicle plus the maximum load allowed by the state on a single axle or on a single pair of wheels. The state of Washington may be taken as a model in trailer legislation, having a carefully worked out and carefully expressed Act, and allowing the load arrangement just stated. Washington law follows the recommendation of the Motor Vehicle Conference Committee that the gross load for four wheels should be 28,000 pounds and the maximum axle allowance 22,400 pounds—a recommendation which was endorsed by the Trailer Manufacturers Association.

While Washington may be taken as a model, the Trailer Association recognizes that this law as it stands will not serve in every state. The principle, however, is nationally applicable.

From the standpoint of the states themselves the encouragement of semi-trailers and four-wheel trailers is a worthy project for the relief which these carriers can provide the highways and traffic, and the aid they give to commerce. Concentration of excessive weight on one wheel, or one axle, is the cause of greatest destruction to roads. High speed, unsprung weight, tractive effort and poor condition of tires are contributing causes. The ordinary truck carries a large percentage of its weight on the rear axle and often carries more than half this axle weight on one wheel. Moreover, the tractive effort operates through those heavily loaded wheels. The tractor

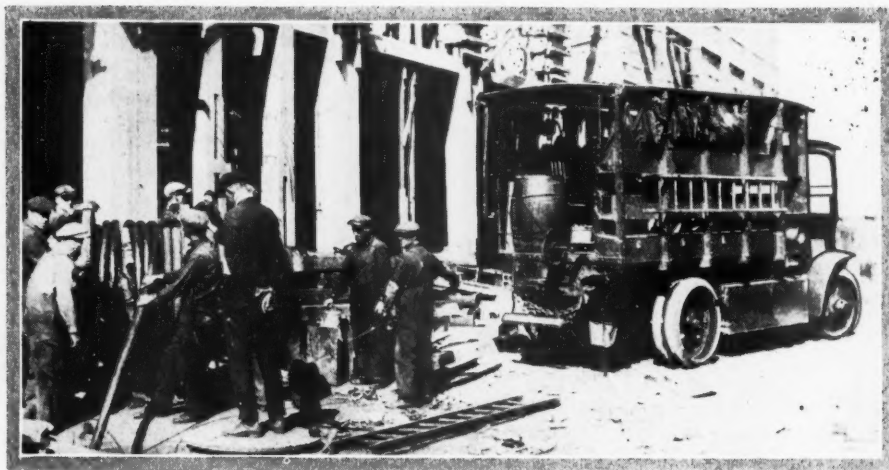
semi-trailer carries its load on six wheels, the greater weight (though nothing like as large a percentage as the truck) resting on the trailer wheels. The trailer is a free-rolling vehicle and as such smooths rather than loosens the road material. Tires on trailers give considerably more mileage than truck tires. According to the U. S. Bureau of Public Roads, "tests conducted recently indicate definitely that the tensile stress set up in a concrete pavement by a six-wheel vehicle, or combination, is only about half as great as the stress produced by a four-wheel truck of the same gross load."

How far apart axles must be so that the effect of one axle will not add to the effect of an adjacent axle is still a subject of controversy. It is generally agreed, however, that a ten-foot wheelbase is ample and that a pair of wheels following two seconds after another pair does no more harm than a pair following two hours later. In other words, the question is whether the adjacent axles are far enough apart so that they do not influence the same area of pavement at the same time. These considerations are important, too, in considering the effect of loads on bridges. The long wheelbase of a tractor-semi-trailer combination or of a truck four-wheel-trailer combination generally prevents the entire weight of the combinations from resting on a bridge or a single span of a bridge at one and the same time.

Reduce Traffic Congestion

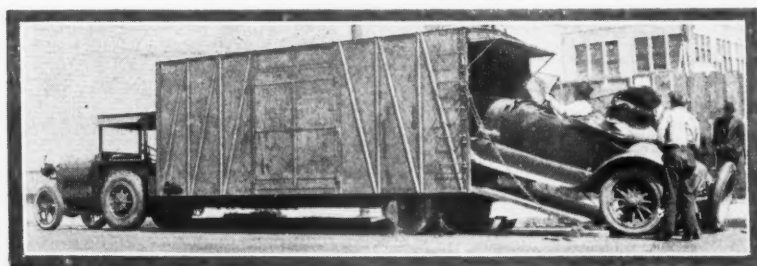
The trailer and semi-trailer permit the hauler to carry larger loads than the truck can carry. They therefore reduce the traffic over a given road. The tractor-semi-trailer or the truck-trailer combination occupies less space of the road than two trucks would. This reduces highway congestion. When a truck and a semi-trailer-tractor unit carry the same loads, the semi-trailer-tractor unit employs a lighter motive power, and the traction wheels of the unit carry a smaller load with the result that there is less unsprung weight and less tractive impact.

These are the main considerations that enter into the discussion of highway legislation this year as it affects trailers. The movement in the right direction has already begun and there is every evidence that highway engineers appreciate the basic facts set forth in this article, and are cooperating with manufacturers, distributors and users of automotive equipment to bring about the needed statutory changes.



Modern industrial demands make the truck winch indispensable

Winches have been developed to meet all requirements. Their utility is especially recognized by telephone companies, where truck winches are constantly used for pulling underground cable. The illustration above shows a Silent Hoist winch-equipped electric truck in service of the New York & Queens Electric Light & Power Co., Long Island City. The illustration to the right shows a close up of a model suited for this work. It is installed immediately behind the cab.

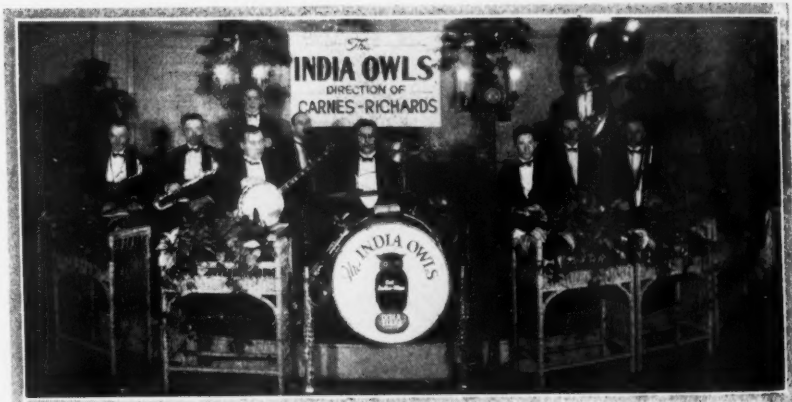


Furniture moving today has become a science

This box car van was built by the Reliance Trailer & Truck Company, San Francisco, for the Starkey Company, Sacramento, Cal., for inter-city moving of furniture, etc. It is faster and more economical and consists of a low bed trailer hooked up to a specially designed tractor.

Right: The "hooting" India Owls are on the air again

The India Owls, a 10-piece orchestra performing under the auspices of the India Tire & Rubber Co., are well known by radio fans for their entertaining programs. They broadcast from WADC, Akron, Ohio on Mondays and Fridays.

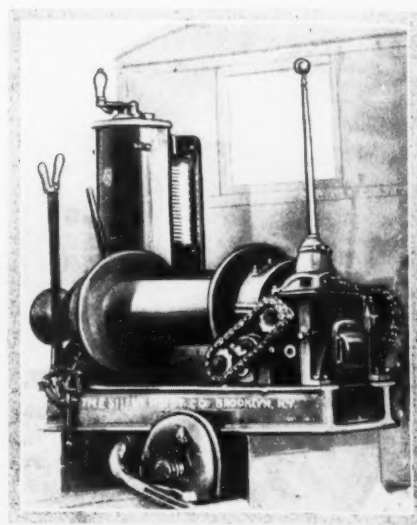


Left: Equipment for expediting the handling of packages

This new truck was recently added to the Los Angeles equipment of the United Parcel Service for use between central plant and local distributing stations. By reason of this system pick-ups made in Los Angeles in the afternoon are delivered in Pasadena and Long Beach the following morning. The van was built by the Crown Motor Carriage Co., Los Angeles. It is mounted on a high speed Federal chassis.

Commercial Car Journal's

Interesting Items Caught
by the Ever-Ready
Camera



Pictorial News Review

Showing Automotive Progress, Achievement and Tendency



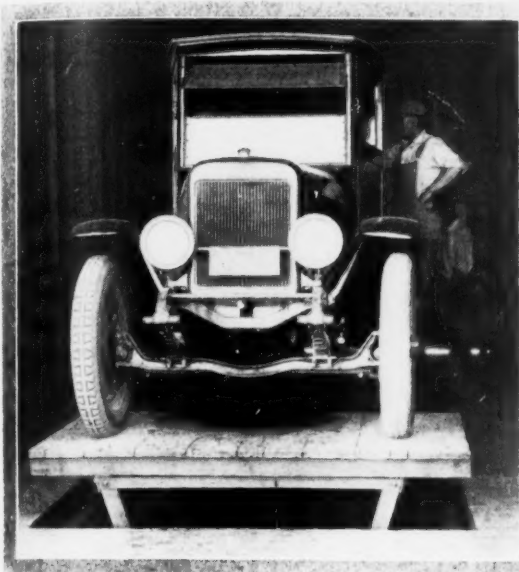
No parking here!

Special traffic signs in San Francisco enables tank trucks to deliver oil to power plants unmolested by traffic.



San Joaquin Valley fast freight moved by Moreland six-wheelers

Speed for hauling fast freight and milk between Los Angeles and Fresno was required. The map on the side of the big freight body indicates the terminals where freight is loaded and delivered. The distance is 225 miles.



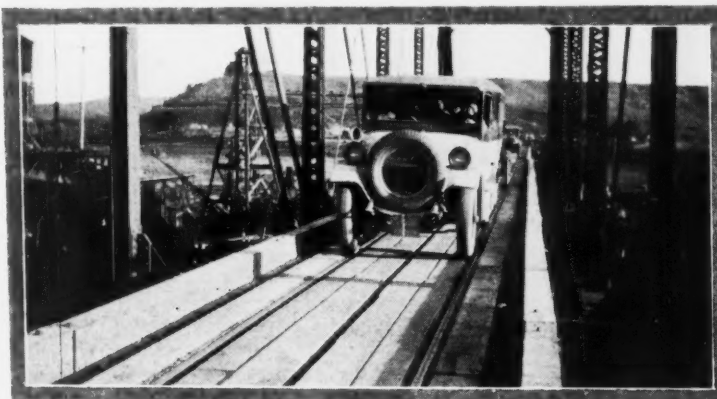
Saving the grain grower's time

Above is shown an International 1-ton speed truck equipped with grain carrying body owned by a farmer in Nebraska at the elevator of a grain company in Kansas. The front part of the truck is lifted by an elevating mechanism to facilitate the unloading of the grain into a hopper beneath the floor.



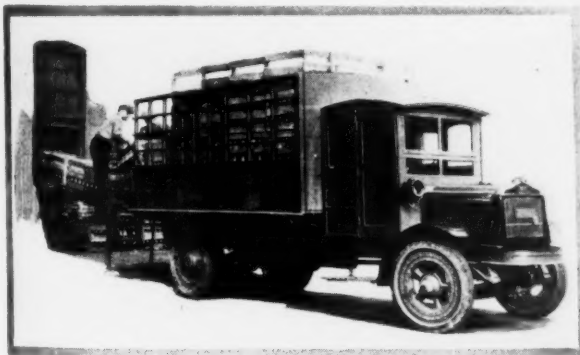
Ice peddling is a pleasure to these sisters

Washington, N. J., steps to the fore with its family of women icemen. The father, A. M. Knerr, owns four ice trucks, all of which are driven by the women members of the family.



Why not use a railroad bridge in an emergency?

While a concrete grade bridge was under construction across the Van Duzen River, California, motor traffic was temporarily shunted over a bridge of the Northwestern Railroad which parallels the bridge under construction. A temporary semaphore signal system was installed for the engine men. The arrangement was very satisfactory.



Above: Millions of bottles saved from the milk bottle bandit.

Discharging a truck load of bottles recovered by the milk dealers bottle exchange in Chicago. This exchange is a co-operative organization of milk dealers, which uses 13 trucks in its work. 3½-ton Whites are used. 40,000 bottles are handled daily.



Four new Studebaker buses recently put into the service of the Chicago, North Shore & Milwaukee Railroad

Motor Transport Will Become Operation & Maintenance

READERS of this publication will be interested in the announcement just made by the Chilton Class Journal Company, regarding the proposed change in name of *Motor Transport*. Beginning with the May issue, the name under which it has been published for some years past will give way to one that more adequately describes the field in which that magazine has made an enviable record. At the same time the editorial scope will be enlarged to meet more thoroughly the specific needs of motor truck and motor bus operators and to make it of infinitely more value to its readers.

To Serve Operators

For many months the editors and executives of the Chilton Class Journal Company—the largest publishers of automotive business papers in the United States—have been concentrating on the development of an editorial policy for a fleet operators' publication which shall more adequately serve the needs of the bus and truck operators.

Complete facts, secured through thousands of questionnaires and personal calls which coupled with many years of experience with the bus and truck operators' problems, show that the major problems of all bus and truck owners are grouped under two classifications.

1. Operation.
2. Maintenance.

The new publication will devote its entire energies and resources to the discussion and analysis of these two most important phases of bus and truck handling.

The new publication will specialize almost exclusively on those problems.

The name which has been selected is extremely appropriate and beginning with the May issue, *Motor Transport* will become OPERATION & MAINTENANCE.

Bus and Truck

OPERATION & MAINTENANCE will be edited for both the bus and truck operator as has been the policy of *Motor Transport*. This is logical because the operation and maintenance of buses and trucks are identical. Both are commercial vehicles—one carrying passengers, the other freight.

Many owners operate both buses and trucks as is particularly the case with the big independent bus lines, large trac-

tion companies and steam railroads. In nine cases out of ten, the bus comes out of the same factory as the truck; in fact, truck engineers have been the ones to design buses. The same purchasing agent buys for both buses and trucks, also the same sales organization is responsible for the sale of the majority of buses and trucks. The same mechanic who overhauls the bus engine, overhauls the truck engine. Maintaining a truck chassis is not different from a bus chassis.

Under the subject of MAINTENANCE will come engine and chassis overhauling, body repairing and overhauling, painting, washing, care of tires, lubrication, machine tool operation, service station equipment, replacement parts handling, hiring and training of mechanics, service station cost records, etc.

Under the heading of OPERATION will be discussed the handling of drivers, cost accounting, routing, scheduling and dispatching, purchasing, terminal facilities, etc.

None of the value which *Motor Transport* has rendered its readers will be

sacrificed in this change, rather the editorial effort will be more concentrated.

The focusing of the editorial policy of the new publication on the two major problems will make OPERATION & MAINTENANCE an ideal business paper for the modern type of fleet transportation superintendent whose main effort is to increase the efficiency of his units and eliminate all waste. Editorially, it will stand for exactly these same principles—efficiency and economy. Articles will be written as briefly as possible and profusely illustrated in order to conserve the reader's time.

Operator's Authority

Typographically OPERATION & MAINTENANCE will take its place among the best designed and edited business papers in the country.

The editors expect to make this publication so informative that its influence with its readers will make it the most widely quoted and used fleet operators' publication this field has ever known.

How a Truck Created a Market

AND now the truck is accredited with having stimulated sales for cement burial vaults. A New Jersey vault builder explains that by reason of the truck he is able to quote a reasonable price for vaults delivered direct to the grave and assure punctual delivery. The plan eliminates the undertaker entirely from the transaction, for which he is thankful. Undertakers generally are not equipped to handle heavy burial vaults and for that reason rarely encouraged the use of vaults.

The truck has changed this. Today the undertaker located in the vicinity of the vault builder unhesitatingly says when the vault question arises, "Go see the Audubon people. They deliver vaults by truck direct to the cemetery and place them in the grave."

The 20th Century Concrete Block Co., of Audubon, N. J., capitalizes the advantages of truck transportation for delivery of its products.

Before the advent of the truck this

company delivered by horse and wagon. A trip to Berlin, about ten miles from its plant used to take all day. Now the trip is made with a truck in an hour.

The vaults weigh about 1,200 lbs. each. At the cemetery the vault is run off the truck body on skids and lowered into the grave by means of a heavy tripod and chain hoist.

Truck delivery has also widened the field of the 20th Century Company's sales. Instead of being confined to a small area within driving distance of its plant it has expanded over a considerable territory. Today it has built up a substantial business in Philadelphia and Camden, frequently making deliveries 20 to 30 miles distant.

The overcoming of sales resistance in this specialized field shows that the value of motor transportation cannot always be figured on a ton mile basis. In this case truck transportation proved to be the key to the solution of the merchandising of the product.

News of the Trade

Truck Industries, Inc. in Detroit Meeting

Younger, in Address, Commends Standardization Program

WITH over 70 members in attendance, Motor Truck Industries, Inc., met March 2-3, at the plant of the Timken-Detroit Axle Co. John Younger, professor of industrial engineering, Ohio State University, endorsed the standardization program of the association, and coined the term "boundary" standardization to indicate the use of standard units without destroying the flexibility of individual units.

He declared that the automotive industry is not taking sufficient pains to train good men and cited the work of other industries in moulding courses at universities.

At the meeting of the directors and committee men, which preceded the all day session, considerable discussion was forthcoming in regards to the ratings committee and the work accomplished to date.

It was found that their work had gone as far as it could under the present arrangements, and on motion, a master committee was formed, to be composed of the chairman and vice-chairman of each of the committees, and that the S. A. E. should be represented on this master committee by having the Society of Automotive Engineers select this representative, so that the work as it now progresses would be kept in close touch with each organization. A vote of appreciation was given the Ratings Committee for their work.

The master committee includes: C. D.

McKim, Continental Motors Corp.; E. B. Ross, Clark Equipment Co.; Ed. A. Ross, Ross Gear & Tool Co.; Col. Fred Glover, Timken-Detroit Axle Co.; Gould Allen and A. E. Parsons of Brown-Lipe Gear Co.; R. E. Carpenter, Spicer Mfg. Corp.; R. E. Hayslett, Hydraulic Pressed Steel Co.; William Morrison, Highland Body Co., and G. A. Wilbur, United Motors Products Co.

A report on association activities for the year showed that the membership had reached 82.

At the close of the meeting the directors immediately convened and the following officers were elected for the year: J. W. Stephenson, president; Paul Moore, first vice-president; C. D. McKim, second vice-president; B. A. Gramm, secretary and treasurer.

American Bus & Truck Co. Getting in Production

Gradually The American Bus & Truck Co. is getting under full production. When it purchased the plant of The Kelly-Springfield Motor Truck Co. it began turning out Kelly trucks to meet the demand of the trade. It plans to begin the manufacture of light trucks soon and later on the Tillings-Stevens, English bus. It will build the single deck and double deck buses. The American Bus & Truck Co. has announced that it has acquired the control of the American rights to the Tillings-Stevens patents.

Edwin T. Herbig, new sales manager of The American Bus & Truck Co., formerly of the General Motors Co., says that the men are feeling optimistic about business this year, and that they are greatly pleased.

N.A.C.C. to Campaign for Electric Trucks

Electric Truck Manufacturer's Association to Disband

ESTABLISHMENT of an Electric Truck Committee to promote the use of electric trucks and handle other problems was decided upon at a meeting of electric truck manufacturers called by the National Automobile Chamber of Commerce. At the same time the Electric Truck Manufacturers' Association, holding a concurrent meeting, voted to disband and transfer all activities and sub-committees to the new Electric Truck Committee, the new arrangement to go into effect after the Atlantic City show of the National Electric Light Association from May 21st to May 28th for which the association has engaged exhibit space on a cooperative basis.

E. R. Whitney, president of the Commercial Truck Co., of Philadelphia, who was president of the manufacturer's association, was elected chairman of the N.A.C.C. Electric Truck Committee. Others who were present at the March 5th meeting, who are members of the new committee, are: C. A. Ward, president, Ward Motor Vehicle Company; G. A. Freeman, vice-president, Walker Vehicle Company; E. A. Fitts, Autocar Company; O. Bahls, O. B. Electric Vehicles, Inc., and G. M. Keller, Steinmetz Electric Motor Car Corporation.

Production figures issued by the Continental Motors Corporation for the first quarter of its current fiscal year show an increase in motor shipments of 77% over the same period last year.

SHOWS

Atlantic City, N. J., May 17 to 21, 1926—Manufacturers exhibition and 49th convention of the National Electric Light Ass'n. Young's Million Dollar Pier.
Detroit, Mich., March 29 to April 3, 1926—Second annual motor bus show.
Greenville, N. C., April 5 to 10, 1926—4th annual Eastern Carolina Exposition and Automobile Show, direction Eastern Carolina Chamber of Commerce, Kinston, N. C. Passenger cars, trucks, tractors, accessories and commercial exhibits. N. G. Bartlett, Mgr., Box 403 Kinston, N. C.
New York City, April 26 to May 1, 1926—Electric Truck Show, 130 East 15th St., direction The New York Edison Company.
Santa Monica, Cal., June 7 to 12, 1926—Annual show and convention, direction United States Good Roads Ass'n. and the Bankhead National Highway Ass'n. J. A. Rountree, Dir. Gen'l. Maudmont, 3200 Cliff Rd., Birmingham, Ala.
Wichita, Kansas, March 22 to 27, 1926—Forum, direction the Wichita Motor Trades Ass'n.

CONVENTIONS

American Gear Manufacturers Association—10th annual convention, May 13 to 15, 1926, Book-Cadillac Hotel, Detroit, Mich.
American Welding Society—Convention, April 21 to 23, 1926, Engineering Societies Bldg., New York City.

Coming Events

Associated Advertising Clubs of the World—Convention, June 20 to 25, 1926, Philadelphia, Pa. Carl Hunt, Mgr.
Automobile Body Builders Association—Convention, June 8 to 10, 1926, Hotel Statler, Detroit.
Automotive Equipment Association—Summer convention, June 14 to 19, 1926, Mount Royal Hotel, Montreal, Canada.
Chamber of Commerce of the United States of America—14th annual meeting, May 10 to 13, 1926, Washington, D. C.
National Automobile Chamber of Commerce—Convention, May 18 and 19, 1926, Detroit.
National Electric Light Association—49th convention and manufacturers exhibition, May 17 to 21, 1926, Young's Million Dollar Pier, Atlantic City, N. J.
North Carolina Automotive Trade Association—Annual convention, March 17 to 18, 1926, Robert E. Lee Hotel, Winston-Salem.
Society of Industrial Engineers—13th National convention, June 16 to 18, 1926, Bellevue-Stratford Hotel, Philadelphia, Pa.
Texas Automotive Dealers Association—Annual convention, May 12 and 13, 1926, Galvez Hotel, Galveston, Texas.

The Tire and Rim Association of America—Annual meeting, April 14, 1926, Hollenden Hotel, Cleveland, Ohio.
United States Good Roads Association and the Bankhead National Highway Association—Annual convention, June 7 to 12, 1926, Santa Monica, Cal. J. A. Rountree, Dir. Gen'l. Maudmont, 3200 Cliff Rd., Birmingham, Ala.

S. A. E.

Detroit Section, March 25—Automobile Gear—John Bethune.
Chicago Section, March 26—Development and Trend in Industry—F. E. Moskovics; Progress in Engine and Chassis Design—H. L. Horning; A Suggested Remedy for Crankcase Oil Dilution—R. E. Wilson.
Northern California Section, March 26—Gasoline and New Fuel Tests—Wm. S. James.
Milwaukee Section, April 7—Chassis Lubrication—Fred Gleason.
French Lick Springs, Ind., June 1 to 4—Summer meeting.

COMING FEATURES OF CHILTON CLASS JOURNAL PUBLICATIONS

May, Automobile Trade Journal—Biggest Market Issue.
May 6, Motor Age—Sales and Service Reference Number.

American Bosch and Auto-Lite to be Combined

Heavy Production Schedules to be Maintained by Bosch Throughout Preliminaries

FOLLOWING the proposed merger of the lighting, starting, and battery ignition business of the American Bosch Magneto Co. with the Auto-Lite Co., on which Bosch stockholders are expected to vote favorably at their annual meeting on April 13, there will be a decided expansion of the Bosch activity. Plans as at present outlined call for the maintaining, until the merger is finally consummated in all its details, of the heavy production schedules instituted by Bosch a short time ago. Furthermore, Bosch systems will be serviced by the Bosch field organization until at least July 1, 1927. This announcement, coming from A. H. Bartsch, general sales manager of the Bosch Company, will set at rest any apprehension of Bosch dealers and service men in the field, lest the merger mean a serious curtailment of their activities and franchise rights.

According to Bartsch, plans are under way for an increase in the number of lines of automotive, radio, standard magneto and other general units, manufactured by the company. It is felt that the elimination of the lines affected by the merger will make it possible to ramify the business considerably and to step up production of the various lines which will be continued.

In commenting on the action of the Company directors in approving the sale of the starting and lighting division of the business Bartsch points out that the Company has been enjoying an increasing business in its windshield wipers, shock absorbers, automobile and marine signals, radio receivers and reproducers, and radio power units. On the other hand, the Company, has not been in a position to serve car manufacturers advantageously with electrical units. Hence the decision that it would be the part of wisdom to release resources for the manufacture and distribution of the lines which have for some time formed the more profitable end of the Company's business.

Realizes Futilities of Opposition

The Illinois Traction System, an electric line which has been fighting the independent bus lines for many years, has finally begun to realize the futility of this policy and has now decided to operate bus lines in competition with the independents as soon as permission has been granted by the Illinois Commerce Commission.

The main terminal of the bus line system will be Springfield. One line will be operated between Springfield and St. Louis; a second between Springfield and Lincoln; a third between Springfield and Riverton; and a fourth between Staun-

ton and Hillsboro. Most of these lines will parallel the right of way of the traction company.

It is the plan of the carrier to lessen the number of its local trains and utilize the buses to take care of this business, turning the passengers over to the through cars at the more important cities. Baggage will be checked on the buses, the same as on the electric cars and the rates of fare will be the same, three cents per mile. Tickets will be interchanged between the buses and trolley cars. Later, it is proposed to operate buses between Bloomington and Peoria; Springfield and Peoria; Springfield and Danville and Decatur and Bloomington.

Illinois and the Bus

There are now 800 motor buses in regular use in Illinois according to statistics compiled by David S. Mowrey, chief of the motor bus department of the Illinois Commerce Commission.

These buses are operated by eighty-eight bus companies and use more than 2000 miles of Illinois streets and highways.

The records show that the first motor bus permit in Illinois was issued in 1914. On January 1, 1922, the total number of permits or certificates of convenience and necessity had increased to 18 and on January 1, 1926, to 192.

These permits had been issued to eighty-two companies operating passenger buses and six to strictly freight bus or truck lines.

The largest operator in the state is the Chicago Motor Coach Company which has 415 buses in operation in Chicago and its suburbs.

The Egyptian Transportation Company is the largest down-town state operator and is using buses on more than 200 miles of roads. It has applications pending which if granted will increase its route mileage to 722 miles, serving 90 towns and cities in central and southern Illinois.

The Illinois bus companies carry approximately 65,000,000 passengers annually.

The above companies are those under the jurisdiction of the state commission. There are a number of interstate operators which are not included in the state figures, but they are comparatively few.

Black & Decker Acquire Large Western Plant

The Plant, Patents and Properties of the Marschke Manufacturing Co. Taken Over

BLACK & DECKER Manufacturing Co., Towson, Maryland, manufacturers of the well-known portable electric tools, announce the acquisition of plant, patents and properties of the Marschke Manufacturing Company, Indianapolis.

The Marschke Manufacturing Company have been building a line of electric grinders, swing grinders, roll radius grinders, snaggers and buffers for more than a decade and have acquired an enviable reputation in the field for many patentable features incorporated in these grinders which make for safety of the operator and economy of operation.

The Marschke plant will continue operations under the supervision of F. W. and W. A. Marschke, founders of the business, in collaboration with the Black & Decker Engineering Department. The Marschke line of grinders will be sold through the jobbers by the present Black & Decker organization and will be sold under exactly the same policies as the Black & Decker Portable electric tools are being sold.

Edison Electric Truck Book

The 1926 electric truck handbook with route maps, ferry time-tables, and other useful hints for owners and operators of electric trucks, and commercial transportation men generally, has just been issued by the Automobile Bureau of The New York Edison Company.

Besides full instructions covering the charging of truck batteries, the book contains information in a condensed form that makes it a valuable guide for electric truck drivers and owners on both Metropolitan and suburban routes.

The book also contains tables of charging rates for storage batteries and typical monthly garage rates in New York City, as well as lists of electric motor truck, battery and charging apparatus and accessories manufacturers. Copies may be obtained free at 130 East 15th Street, New York City.



New Cleveland Factory Branch of the Gottfredson Corporation

The structure is imposing with a 100 ft. frontage and a total of 20,000 sq. ft. of which 18,000 ft. is apportioned to the service department. A. B. Miller will act as branch manager. Bill Lynch, a pioneer with the old guard in truck sales and service in this section, is the man in the overalls in charge of maintenance.

No Opposition at Bay State Regulation Hearing

Both Sides Expressed Themselves Freely.
All Given a Chance to Suggest
Changes

OPERATORS of motor bus and coach lines and their attorneys were present in large numbers at the hearings recently held by the Public Utilities Commission of Massachusetts on the proposed new regulations governing the use and operation of such vehicles in the Bay State. The commission had been studying the problems of regulation ever since the new law went into effect last year giving the board control over coaches and buses. So when the proposed new regulations were published it gave all interested a chance to go over them and to suggest changes if necessary.

There was no great opposition manifested. In fact it was rather a conference in which both sides expressed themselves freely. H. Ware Barnum represented the largest group of users, the Boston Elevated Street Railway Company, the New York, New Haven and Hartford Railroad, the Boston and Maine Railroad, the Middlesex and Boston Street Railway and the Eastern Massachusetts Street Railway. Most attention was devoted to emergency doors, windshield cleaners, hours of service for operators, testing equipment, the obligation to carry passengers, and the section on standees and seats. Some of the limitations on carrying passengers for lengthy distances when there were no seats brought out the fact that it would mean redesigning coaches for making more room to sit down. It was suggested that in carrying school children a concession should be made.

Chief opposition developed upon the hours of drivers. Mr. Barnum said there should be no hard and fast rule made, but it should cover a man working on stretches for not more than 14 hours. Others suggested a nine hour limit in 16 hours should be adopted.

Day Baker representing the Motor Coach and Bus Association suggested nothing be done now until the matter had been given further study and then something framed as a result of wider experience. He said that his association had been operating for six months under regulations practically the same as those proposed by the commission.

Henry W. Seward, an inspector for the commission, said some rule should be made as he had found drivers working for stretches of 18 hours, and the commission felt that this was hazardous to travelers. He said that the nine in eleven hours governing street railway workers should be the rule for motor driving. There was some disagreement over the rule requiring taking on passengers when there was room and limiting the length of all motor buses and coaches to 28 ft. and the width to 96 in. and

preventing the transfer of a bus from one route to another.

Following the hearing, a meeting of all concerned was held at the Copley Plaza Hotel, Boston, where every phase of the matter was discussed in an effort to agree upon some tangible suggestions to request the Public Utilities Commission to adopt.

Deferred Payment Plan Aids Charging Board Purchasers

A deferred payment plan which makes it possible for any electric truck user to purchase and install a battery charging board and pay for it while using it has been announced by the New York Edison Company. Under the plan offered, the purchaser pays 1/12 of the cost of the board and installation at the time the order is placed and the balance is distributed over a term of one year.

The purchaser may select any type of board adapted to his needs and may have the installation made by any reputable contractor, both transactions being carried on exactly as if cash were being paid. When the outfit is complete the bills are paid by the New York Edison Company. No interest or financing fees are charged by the company.

The plan enables electric truck users to purchase a battery charging board and pay for it out of savings from the installation, at least in part.

New Moreland Road Runner

The new Moreland Road Runner exhibited by the Moreland Motor Truck Company has eleven feet loading space back of the driver's compartment. The cab is equipped with disappearing side curtains. The chassis is so "husky" in design that it is capable of considerable overloads without strain, yet the powerful six-cylinder Continental Red Seal engine and light weight high grade materials used throughout, make it fast and economical for delivery work. The new Road Runner model is furnished with cabs and bodies to suit various individual needs. All body work is handled in the big local plant of the Moreland Motor Truck Company.

M. & A.M.A. Reports Big Trade Volume

Business of automotive parts and accessory manufacturers got under way for 1926 with tremendous volume. According to the Motor and Accessory Manufacturers Association, with members in all the principal production centers of the industry, January shipments from factories were one-third greater than in the first month of 1925, and has been proceeding at a strong pace throughout February.

Floor space of the North East Electric Co. of Rochester, N. Y., has been increased to over 600,000 sq. ft. With these additions, the North East Electric Co. becomes one of the largest industries in Rochester, employing over 3000 people.

Phila. Truck Association Holds Interesting Meeting

Reclamation Solution for Rubber
Problem Says Curator of
Phila. Museum

THAT the high price rubber problem could only be solved by the reclamation of old rubber, increased production by independent small growers and the possible success of rubber growing trees on a large scale in Liberia, Africa, was the opinion expressed by Charles R. Toothaker, curator of the Commercial Museum, before the monthly meeting of the Motor Truck Association of Philadelphia.

He said that he thought England could hardly be blamed for getting as much as possible for the rubber it practically controlled, as any other country would do the same. At present, he stated, the world is almost entirely dependent upon rubber produced in British or Dutch governed countries, excepting wild rubber in South America and few other smaller sources. Another possible future source was a chemically made rubber on which chemists are experimenting, but so far the process is too expensive to be practicable.

"The reclamation of old rubber," he continued, "seems to be the most immediate hope of relief. Last year one-fourth of the old rubber in this country was reclaimed and this year about one-third will be the product going into rubber soles and heels and into truck solid tires, for which it is perfectly suited."

The meeting was presided over by Buell G. Miller, president of the Association, who conducted a forum for discussion of the Dump Truck Owners Problem, the result of which was a general criticism of the ruinous price cutting competition of such truck users, ruining their own business as well as that of others. A committee of seven was appointed with Charles McCarran as chairman to investigate and suggest remedies.

Federal Motor Truck 1925 Profit \$1,411,198

A net profit of \$1,411,198 before Federal taxes as against \$684,670 in 1924 was reported by the Federal Motor Truck Company for the year ending December 31, 1925.

The net profit after Federal taxes in 1925 was \$1,234,799, equivalent to \$6.17 a share (par \$10) earned on outstanding 200,000 shares of stock. In 1924 the balance after taxes was equivalent to \$3.15 a share.

The annual Electric Truck Show, which The New York Edison Company holds in its showrooms, 130 East 15th Street, is scheduled from April 28 to May 1, 1926.

The exhibition will be devoted to electric street trucks, storage batteries and accessories.

Federal Road Bill Approved by House

"There can be no question about the attitude of the general public toward continued highway improvement," H. H. Rice of the National Automobile Chamber of Commerce informed the House Committee on Roads holding hearings on the Dowell Federal-aid bill when he testified recently.

"The mere fact that there are 20,000,000 motor vehicles on the streets and highways of the nation today," continued Mr. Rice, "constitutes a straw vote of tremendous significance. The people of this country are purchasing individual transportation just as they purchased any other commodity which is of vital importance to their well-being and happiness."

The committee, following Mr. Rice's appeal for adequate funds, voted to report favorably the Dowell bill, authorizing expenditures of \$75,000,000 in 1928 and a like amount in 1929 for Federal highway aid. In addition the bill authorizes \$7,500,000 for forest roads in each of the two years.

Hawaiian Wins Firestone Scholarship

John Texeira, Kauai High School, Territory of Hawaii, "the most western high school in the western boundary of the United States," is announced as winner of the H. S. Firestone Four Years' University Scholarship offered in the national good roads essay contest of 1925.

Texeira's essay was chosen as the best of approximately 200,000 papers submitted by high school students of the United States and its possessions.

The scholarship, which is the sixth of its kind to be awarded, will defray all of the student's expenses pertaining to tuition, room, board, books, and special fees during four years at any college or university in the United States that he may choose to attend. Its value is probably in excess of \$4,000.

Buses Growing Rapidly in South

Thirteen thousand buses are now in service in the southeastern states. This does not include the vehicles operated by 102 hotels and 27 sight seeing companies. Despite popular impression that Florida is most active in this line the records show Mississippi and North Carolina to be in the lead. This is due to their large use of school buses. However, the common carrier bus use in the South is largest in Virginia, with Florida ranking fifth.

New Tax Bill Will Save Industry Millions

President Coolidge signed the new tax law Feb. 26. While passenger car taxes were reduced from 5% to 3% all other automotive taxes on trucks, tires, parts, accessories, etc., were eliminated.

Alfred Reeves, general manager, National Automobile Chamber of Com-

merce, estimates that the total saving to the industry through the reductions will be \$82,150,000 a year. Passenger cars, buses and taxicabs account for \$46,400,000, the remainder being divided into \$25,000,000 on tires, parts and accessories; \$9,000,000 on trucks, and \$1,750,000 on automobiles for hire.

Predicts 5,000,000 Buses and Trucks

Alfred Reeves, general manager of the National Automobile Chamber of Commerce, predicted an automobile output in 1926 of 4,300,000 cars and declared that the greatest years of growth have not yet been realized by the automobile industry. He prophesied that within a few years 25,000,000 automotive vehicles will be on our highways, of which number 5,000,000 will be buses and trucks.

Help Reduce Casualties

Approximately 30 per cent of the 21,000 men, women and children killed by automobiles during 1925 were run down by trucks, delivery cars and taxi cabs.

Almost 20 per cent of the 600,000 persons injured by automobiles last year were struck by commercial cars.

To reduce this toll, the National Safety Council is inaugurating a country-wide campaign designed to make safer drivers of chauffeurs employed by fleet owners.

Personals

George F. Bauer, secretary of the N. A. C. C. foreign trade committee, sailed for Havana recently. Alfred Reeves, general manager; R. D. Chapin and John N. Willys also sailed for Cuba. These N. A. C. C. representatives have been invited to assist the Cubans in planning the expenditure of a \$100,000,000 road bond issue recently authorized by the Cuban Government.

W. E. Dugan has been re-elected president of the Shuler Axle Co., Inc. Other officers elected: W. H. May, vice-president; L. E. Saunders, treasurer; H. R. Silver, secretary.

J. W. Fordney, formerly chairman of the Ways and Means Committee of the United States House of Representatives, has been elected president of Ruggles Motor Truck Co. He has been associated with the company for the past two years as a director. H. R. Wickes was elected second vice-president. The following officers were re-elected: R. J. Goldie, first vice-president; Charles T. Kerry, treasurer; E. L. Smith, secretary.

D. M. Gillespie has been appointed western district manager of the White Company, with headquarters at Denver. A. W. Newlon was appointed Houston branch manager and R. W. Doyle, El Paso branch manager.

R. H. Harrington has been appointed advertising manager of the American Rubber Company. He was formerly assistant advertising manager of the Seiberling Rubber Co.

H. G. LaForge, formerly with the Mack Truck Co., has been appointed Kansas City branch manager of the American Bus & Truck Co. J. F. Boeger, has been appointed cashier and assistant secretary, replacing Paul Diehl, resigned.

Charles W. McDaniel has become president and account executive of Eddy & Clark, Inc., sales and advertising agency of Akron. He was formerly connected with the Goodyear Tire & Rubber Co. as manager of the tubes sales department.

L. A. McQueen as assistant general sales manager of the B. F. Goodrich Rubber Company has charge of tire sales and advertising. His appointment comes through the creation of a separate sales division for the company's tire business.

L. C. MacGlashan succeeds L. R. Babcock, who resigned on account of ill health, as advertising manager of the Zenith Detroit Corp. Mr. MacGlashan was formerly New England representative of the Monroe Auto Equipment Co.

Park A. Manross formerly of the Republic Motor Truck Co. of Alma, Mich., and later in charge of purchases and manufacturing of the Ruggles Motor Truck Company of Canada, has become factory manager of Kelvinator of Canada Ltd., London, Ont.

T. C. Marshall has retired as vice president after a twenty-five year connection with the Kelly Springfield Tire Co. He has served in many capacities and at the time of his resignation was manager of the Cumberland plant.

W. E. Metzger has been elected a director of the Federal Motor Truck Company. He is well known in the motor truck industry and has been connected with the N. A. C. C. for a number of years as a member of the board of directors.

M. D. Munn has been appointed service engineer of the White Company. Other appointments: W. E. Beilstein, supervisor of branch office buildings; E. J. Witter, acting district service manager of Cleveland branch; C. T. Walker, service manager of Cleveland branch; C. G. Inman, service capacity in export department; A. J. White, service manager Chicago & Lake Michigan districts; J. S. Dagilaitus, Kansas City district service manager; G. C. Frank, Dallas service manager; D. F. Gager, Tulsa service superintendent; R. L. Baker, service manager, Jacksonville, Fla.; Manley Cosper, Miami service manager; Martin Mulloy, Nashville service manager; J. H. Cross, Oakland service superintendent; C. W. Hewitt, Utica service superintendent; H. E. Dumont, Duluth service superintendent; L. A. Batton, Huntington, W. Va., service superintendent.

H. C. Osman, sales manager of the Nugent Steel Castings Co., Chicago, has been elected secretary of the company. He will continue to have charge of sales. C. A. MacDonald, formerly secretary, has been elected treasurer.

Mark A. Smith, formerly district representative in Phila., has been advanced to the position of assistant sales manager of the motor coach division of the Yellow Manufacturing Sales Corp.

William G. Shortal, connected with the sales department for many years, has been appointed manager of the territorial division of the Pierce-Arrow Motor Car Co. James Brooks has been appointed representative for eastern New York state and Connecticut and A. M. Russell, representative for Mid-western states.

H. T. Thomas, vice-president and chief engineer of the Reo Motor Car Company, has retired after many years of service with that company. F. Segardi will be in charge of engineering work.

William K. Vanderpoel has resigned as general superintendent of distribution of the Electric Department of the Public Service Electric & Gas Co. to become vice-president and executive engineer of the Okonite Co. and the Okonite-Callender Cable Co., Inc.

A. A. Warner has accepted the position as engineering and sales representative of the Universal Product Co., Detroit, Mich. He was formerly sales engineer of the Stromberg Device Company.

J. H. Weller has been elected to the board of directors of the Gray Manufacturing Company. He has served in the capacity of factory manager for the past four years.

Commercial Car Specifications—Corrected Monthly

The Specifications, Chassis Prices, Etc., Are Corrected Each Month From Data Supplied Direct by the Makers. Gasoline Tractor-Trucks Will be Found at the End of Gasoline Commercial Cars

Those Chassis Which Are Sold and Recommended for Passenger Transportation Are Designated in the Following Table by Reference Sign (\$) in Front of the Name

For Specially Designed Motor Bus Chassis See Pages 36 and 37
(Where prices are not given it is because we have been unable to get them from authoritative sources)

General															Engine										Electrical System		Clutch		Gearset		Rear Axle		Gear Ratios		Brakes, Location		Front Axle Make and Model		Springs (Make)		Steering Gear (Make)		Wheels (Make)		Rims (Make)		Chassis Weight (lbs.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Tire Size \$		Tire Size \$		Bore and Stroke (inches)		N.A.C.C. Rated H.P.		Valve Arrangement		Oiling System		Governor (Make)		Radiator (Make)		Fuel System		Ignition System		Generator and Starter (Make)		Make		Type		Location		No. of Forward Speeds		Universals (Make)		Make and Model		Final Drive		Type		Total Reduction in High		Total Reduction in Low		Type		Own Sup		Own 91		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own		Own			

Trade Name and Model	General			Engine						Electrical System		Clutch		Gearset			Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.)		
	Standard Wheelbase (Inches)	Tire Size		Bore and Stroke (Inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System		Generator and Starter (Make)	Type	Make and Model	Location	No. of Forward Speeds	Universals (Make)	Make and Model	Type	Total Reduction in High							Total Reduction in Low	Brakes, Location
		Front (Inches)	Rear (Inches)							Carburetor (Make)	Fuel Feed																	
1 Ton-Con'd																												
Ogden A2	125	34x5	34x5	34x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	W	5.60	18.6	A	Tim 1250	Tut	Ros	Bim	Gdy	3100
O. K.	1795	131	34x5	34x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	W	6.75	20.0	A	Tim 1250	Tut	Ros	Bim	Gdy	3250
Penn.	780	122	30x3 1/2	32x5 1/2	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	W	6.75	22.5	A	Col 3000	Per	Lav	Jon	Fir	2175
Rainier R-29	122	133	30x5	30x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	W	4.7	15.7	A	Shu 310	Mar	Lav	Jon	Fir	2600
Ruggles 16	122	133	30x5	30x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	W	5.5	23.4	A	Shu 310	Mar	Lav	Jon	Fir	3000
Sandow G.	120	30x5	30x5	30x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	S	5.5	15.6	A	Shu 310	Mar	Lav	Jon	Fir	3765
Sandow GA.	130	30x6	30x6	30x6	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	S	6.42	20.8	A	Shu 510	She	Ros	Sm	Fir	3900
Schacht	132	32x3 1/2	32x5 1/2	32x5 1/2	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.1	24.0	A	Shu 510	She	Ros	Sm	Fir	2700
Service 25H	1245	130	32x5	32x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	6.25	25.0	A	Shu 510	She	Ros	Sm	Fir	3400
Stewart 16	1245	130	32x5	32x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	6.25	25.0	A	Shu 510	She	Ros	Sm	Fir	3400
U. S. U.	2085	125	34x5	34x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	6.25	25.0	A	Shu 510	She	Ros	Sm	Fir	3400
Wachusett S.	1900	130	34x5	34x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	6.25	25.0	A	Shu 510	She	Ros	Sm	Fir	3400
Wilcox AA.	1900	130	34x5	34x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	6.25	25.0	A	Shu 510	She	Ros	Sm	Fir	3400
Yellow Cab T-1	1450	130	34x5	34x5	22 1/2	L	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	6.25	25.0	A	Shu 510	She	Ros	Sm	Fir	3400
Yellow Knight T2	1095	124	32x4 1/2	32x4 1/2	18.9	X	PS	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	S	5.37	17.3	B	Tim 750F	Mar	Gem	Bud	Fir	3210
1 1/4 Ton																												
Autocar F.	120	34x4	34x4	34x4	18.1	L	SP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	R	8.30	33.2	A	Own F	Del	Ros	Hoo	Non	3900
Autocar G.	120	34x4	34x4	34x4	18.1	L	SP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	R	8.30	33.2	A	Own F	Del	Ros	Hoo	Non	3900
Biederman	154	33x5	33x5	33x5	27.3	L	FP	Non	G&O	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	7.2	35.0	A	Shu	Mat	Ros	SM	Non	3600
Brookway E.	135	32x6	32x6	32x6	4	X	5	25.6	H	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	B	5.12	...	A	Col	She	Gem	Van	Fir	3125
Brookway E8	153	32x6	32x6	32x6	4	X	5	25.6	H	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	B	5.12	...	A	Col	She	Gem	Van	Fir	3125
Brookway EY	150	33x5	33x5	33x5	3 1/2	X	5 1/2	22.5	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	B	6.25	29.5	A	Shu 5405	Per	Ros	SM	Fir	3500
Clinton 20B	150	30x5	30x5	30x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	W	6.75	32.4	A	Tim 1250	Per	Ros	SM	Fir	3450
Clinton 20	150	30x5	30x5	30x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	W	6.75	32.4	A	Tim 1250	Per	Ros	SM	Fir	3450
Clydesdale 10A.	154	34x5	34x5	34x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	6.14	24.5	A	Col 7000	Det	Lav	SM	Fir	3250
Defiance G2	128	35x5	35x5	35x5	3 1/2	X	5 1/2	22.5	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	B	6.14	24.5	A	Col 7000	Det	Lav	SM	Fir	3450
Defiance GL2	140	34x5	34x5	34x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	I	6.60	24.0	A	Col 5000	Cha	Ros	Std	Fir	3050
Eagle 101	134	34x5	34x5	34x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	D	6.60	24.0	A	Col 5000	Cha	Ros	Std	Fir	2950
Federal R-3	1675	132	33x5	33x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Gramm-Bernstein 10	129	30x5	30x5	30x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Gramm-Kincaid 233N	133	30x5	30x5	30x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Gramm-Kincaid 263N	133	30x5	30x5	30x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Guilber B-6	132	30x5	30x5	30x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Hahn B2	1650	132	30x5	30x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Master 11	130	32x5	32x5	32x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Memphis HT	130	32x5	32x5	32x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Northway Rocket	1390	138	32x4 1/2	32x4 1/2	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Patriot 17R	1035	129	32x5	32x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Reo F.	1185	128	32x5	32x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Reo F.	1185	128	32x5	32x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Reo F.	1185	128	32x5	32x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Reo F.	1185	128	32x5	32x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Reo F.	1185	128	32x5	32x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.85	23.4	B	Sal D	Per	Gem	Dis	Fir	2900
Reo F.	1185	128	32x5	32x5	22 1/2	L	FP	Non	Chl	Zen	V	Rem	B-L	D	B-L 30	Tim 6258	Tim 6258	Tim 6258	B	5.8								

[illegible]

Key of abbreviations, page 35

Trade Name and Model	General			Engine				Electrical System		Clutch		Gearset		Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
	Standard Wheelbase (inches)	Tire Size	Rear (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System	Ignition System (Make)	Generator and Starter (Make)	Type	Make and Model	Final Drive	Type	Total Reduction in High	Total Reduction in Low						
2 Ton																							
Acme 41	150	34x4	34x8	28.9	L	SP	Mon	Per	Zen	Bos	.....	D	B-L	Tim 6462	W	7.00	36.4	Tim 1520	Det	Ros	Bin	.....	4650
Autocar F	120	34x4	34x6	18.1	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	8.30	33.2	Own F	Del	Ros	Hoo	.....	3900
Autocar G	114	34x4	34x7	18.1	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	8.30	33.2	Own F	Del	Ros	Hoo	.....	5100
Autocar GK	138	34x5	34x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	5200
Available L-2	152	36x4	36x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4750
Bethlehem GN	2465	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4100
Brookway S	147	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4050
Brookway SY	150	34x4	34x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	5000
Buck 44	160	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4850
Casco C	2700	32x6	36x8	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4875
Clydesdale 9	160	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4600
Commerce S14	146	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4150
Concord H	3700	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4250
Corbett C	148	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	5265
Day-Elder H	144	34x4	34x6	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4300
Day-Elder HST	144	34x4	34x6	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4500
Day-Elder HSM	144	34x4	34x6	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4500
Defiance E2	140	35x5	35x7	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3865
Dixie	2800	34x4	34x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4450
Duplex A	160	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4400
Eagle 104	130	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4300
Federal S27	144	34x4	34x6	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3500
Gramm-Kincaid 443N	133	32x6	32x8	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3300
Gramm-Kincaid 463N	133	32x6	32x8	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3300
Grass Premier 70	2550	34x4	34x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4400
Guider E	152	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4400
Hahn K	142	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4400
Hug HA	118	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4400
Int. Harvester 43	130	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4790
Kearns N1	136	34x4	34x6	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3600
Kenworth M	3100	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4300
King Zeiler 40	156	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4300
King Zeiler 42A	156	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4300
Larrabee XJ	168	34x4	34x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3270
Lehigh	1795	32x6	32x8	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3600
Lehigh GP-2	150	32x6	32x8	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4700
Mack 46	146	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3850
Mack AB	2000	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3850
Mack BX6	2180	34x4	34x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4500
Nash	3235	32x6	32x8	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4500
Nash 2018	3235	32x6	32x8	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4500
National 21	3400	32x6	32x8	22.5	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4500
Noble B31	2900	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4850
O. K.	2850	36x3	36x5	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4310
Oshkosh AW	3080	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4250
Oshkosh AAW	3180	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4400
Patriot 36	2300	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3975
Penn.	2300	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3975
Pennford	925	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3280
Perce Arrow XA	3500	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	6280
Reco	1985	36x4	36x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	3925
Rehberger A	156	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4200
Republic 15	153	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4200
Republic 15W	153	34x4	34x6	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4200
Rugless 41	138	30x5	34x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4000
Sandwich	2600	34x4	34x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4000
Sandwich 15	143	34x4	34x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4000
Sterling DW10	143	34x4	34x7	25.6	L	SP	Non	Own	Str	Bos	L-N*	P	Own F	Own F	W	7.03	42.2	Own F	Del	Ros	Hoo	.....	4500

This image shows a blank, aged, cream-colored page, likely an endpaper or flyleaf of a book. The paper has a slightly textured appearance with some minor creases and discoloration, particularly along the edges. The left edge of the page shows the binding of the book, with some visible stitching or glue. The overall tone is a warm, off-white or light beige.

Key of abbreviations, page 35

Trade Name and Model	General			Engine						Electrical System			Clutch		Gearset			Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)				
	Chassis Price	Tire Size &&		Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Fuel System		Ignition System (Make)	Generator and Starter (Make)	Type	Make	Type	Make and Model	Location	No. of Forward Speeds	Universals (Make)	Make and Model	Final Drive							Type	Total Reduction in High	Total Reduction in Low	Brakes, Location
		Standard Wheelbase (inches)	Front (inches)						Rear (inches)	Carburetor (Make)																						Fuel Feed
2 1/2 Ton-Con'd																															
Oakloch MM.....	2975	170	36x64	36x84	Her OX	4 x 5	25.6	L	PP	Pie	Own	Zen	Spl	B-L	D	B-L 51	U	4	Blo	Wis F65B	R	9.25/49.5	9.25/49.5	Wis 20	Tut	Han	Van	Gdy	5350		
Patriot 60.....	156	36x10	36x50	36x80	Hin 400	4 x 5 1/2	25.6	L	PP	Non	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Tim 6566	W	9.25/49.5	9.25/49.5	Shu D390	Mar	Ros	Van	Gdy	5300		
Rainier R28.....	1590	34x8	36x50	36x80	Bud ETU	4 1/4 x 5 1/2	27.2	L	PP	Pie	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1540B	She	Ros	Van	Gdy	4900		
Sandow 20.....	165	36x7	36x50	36x80	Con 6B-6	4 1/4 x 5 1/2	33.7	L	PP	Non	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1540B	She	Ros	Van	Gdy	4600		
Sandford W-6-25A.....	185	36x7	36x50	36x80	Con L-4	4 1/4 x 5 1/2	32.4	L	PP	Non	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1540B	She	Ros	Van	Gdy	4600		
Sandford W-4-25B.....	174	36x5	36x50	36x80	Wis UAU	4 1/4 x 5 1/2	32.4	L	PP	Non	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1540B	She	Ros	Van	Gdy	4600		
Schacht L.....	3600	165	36x84	36x84	Con K-4	4 1/4 x 5 1/2	28.9	L	PP	Pha	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544B	Det	Ros	Van	Gdy	4600		
Selden Unit 50.....	149	36x4	36x50	36x80	Rud ERU-1	4 1/4 x 5 1/2	28.9	L	PP	Sim	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544B	Det	Ros	Van	Gdy	4600		
Service 61.....	164	36x4	36x50	36x80	Con K-4	4 1/4 x 5 1/2	28.9	L	PP	Sim	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544B	Det	Ros	Van	Gdy	4600		
Standard 2 1/4-3 1/4 K.....	147	36x4	36x50	36x80	Con K-4	4 1/4 x 5 1/2	27.2	L	PP	Sim	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Amc	Ros	Van	Gdy	4600		
Standard 2 1/4-3 1/4 K.....	147	36x4	36x50	36x80	Con K-4	4 1/4 x 5 1/2	27.2	L	PP	Sim	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Amc	Ros	Van	Gdy	4600		
Stirling DW-12.....	142	36x4	36x50	36x80	Con K-4	4 1/4 x 5 1/2	27.2	L	PP	Sim	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Amc	Ros	Van	Gdy	4600		
Stewart 19.....	3200	165	36x84	36x84	Own V	3 x 5	31.5	L	PS	Wau	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Super Truck 50.....	3150	156	36x84	36x84	Lye-6	3 x 5	31.5	L	PS	Wau	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Tadpole 19.....	2700	140	36x4	36x84	Wis TAU	4 1/4 x 5 1/2	28.9	L	PP	Sim	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Triffin.....	2975	163 1/2	36x50	36x84	Con S4	4 1/4 x 5 1/2	28.9	L	PP	Sim	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Twin City RW.....	155	36x5	36x50	36x80	Own TW	4 1/4 x 5 1/2	28.9	L	PP	Sim	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Union FLW&FW.....	155	36x5	36x50	36x80	Wis TAU	4 1/4 x 5 1/2	28.9	L	PP	Sim	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Union F.....	155	36x5	36x50	36x80	Her OX	4 x 5	25.6	L	PP	Non	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
United 50.....	156	36x4	36x50	36x80	Her OX	4 x 5	25.6	L	PP	Non	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
U.S. R.....	3600	156	36x84	36x84	Her OX	4 x 5	25.6	L	PP	Non	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Victor 70.....	2025	156	36x84	36x84	Wau CU	4 1/4 x 5 1/2	30.6	L	PP	Wau	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Victor 60.....	2075	156	36x84	36x84	Own CC	4 1/4 x 5 1/2	28.9	L	PP	Wau	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Wachusett L.....	170	36x5	36x50	36x80	Con L-4	4 1/4 x 5 1/2	32.4	L	PP	Wau	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Ward LaFrance 2B.....	170	36x5	36x50	36x80	Wau CU	4 1/4 x 5 1/2	30.6	L	PP	Wau	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
White 51.....	3750	161	36x5	36x84	Own CC	4 1/4 x 5 1/2	28.9	L	PP	Wau	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Winlox CC.....	3000	135	36x4	36x84	Wis SU	4 x 5	25.6	L	PP	Wau	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Winther 44.....	3100	161	34x5	36x84	Con K-4	4 x 5	25.6	L	PP	Wau	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
Will-Will S.....	3100	146	36x4	36x84	Con K-4	4 1/4 x 5 1/2	27.2	L	PP	Pie	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1542B	Nat	Ros	Van	Gdy	4600		
3 Ton																															
4-Mcne 60L.....	156	36x4	36x50	36x80	Con L-4	4 1/4 x 5 1/2	32.4	L	PP	Mon	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544	Det	Ros	Van	Gdy	5850		
Armlider 60.....	152	36x5	36x50	36x80	Bud ERU	4 1/4 x 5 1/2	28.9	L	PP	Pha	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544	Det	Ros	Van	Gdy	5800		
Autocar H.....	114	34x6	36x10	36x80	Own H	4 x 5 1/2	28.9	L	PP	Pha	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544	Det	Ros	Van	Gdy	5800		
Autocar K.....	138	34x6	36x10	36x80	Own Y	4 x 5 1/2	28.9	L	PP	Pha	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544	Det	Ros	Van	Gdy	5800		
Autocar HPDS.....	114	34x6	36x12	36x80	Con K4	4 1/4 x 5 1/2	28.9	L	PP	Pha	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544	Det	Ros	Van	Gdy	5800		
Brockway K13.....	153	36x4	36x84	36x80	Con K4	4 1/4 x 5 1/2	27.2	L	PP	Pha	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544	Det	Ros	Van	Gdy	5800		
Brockway K16.....	154 1/2	36x4	36x84	36x80	Con K4	4 1/4 x 5 1/2	27.2	L	PP	Pha	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544	Det	Ros	Van	Gdy	5800		
Brockway KR.....	156	36x4	36x84	36x80	Con L4	4 1/4 x 5 1/2	32.4	L	PP	Pha	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544	Det	Ros	Van	Gdy	5800		
Brockway KHB.....	163	36x4	36x84	36x80	Wis HB6	3 1/4 x 5	33.7	H	PP	Pha	Own	Zen	Spl	B-L	D	B-L 51	A	4	The	Shu D390	W	9.25/49.5	9.25/49.5	Tim 1544	Det	Ros	Van	Gdy	5800		
Buck 64.....	163	36x5	36x10	36x80	Con L-4	4 1/4 x 5 1/2	32.4	L	PP	Pha	Own	Zen	Spl	B-L	D	B-L 51	A	4													

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Key of abbreviations, page 35

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5½ Ton and Over

Gasoline Tractor-Trucks

KEY OF ABBREVIATIONS

Wheelbase:

- *—More than one wheelbase furnished.

Tires:

- †—Unless marked otherwise all tires are solids.
- Pneumatics standard equipment.
- †—Pneumatics at Extra Cost.
- †—Dual pneumatics standard.
- †—Dual solids.
- ††—Dual pneumatics extra cost.

Engine:

- Bud—Buda Co., Harvey, Ill.
- Con—Continental M. Corp., Detroit, Mich.
- D—Head & Side
- FP—Full Pressure to all bearings including wrist pins.
- H—Overhead.
- Has—Hall-Scott Motor Car Co., Berkeley, Cal.
- Her—Hercules Motors Corp., Canton, Ohio.
- Himco—Hinkley Motors, Inc., Detroit, Mich.
- Hin—Hinkley Motors, Inc., Detroit, Mich.
- I—In Head.
- Jackson—Master Motor Truck Mfg. Co., Chicago, Ill.
- Knl—Yellow Sleeve Valve Eng. Works, East Moline, Ill.
- L—L-Head.
- Lyc—Lycoming M. Corp., Williamsport, Pa.
- Overland—Willys-Overland Co., Toledo, O.
- PC—Pressure to all crankshaft and connecting rod bearings.
- PS—Pressure with splash.
- SP—Circulating splash.
- T—T-Head.
- Wau—Waukesha M. Co., Waukesha, Wis.
- Wis—Wisconsin M. Mfg. Co., Milwaukee, Wis.
- Yell—Yellow Sleeve V. E. Works, E. Moline, Ill.
- X—Sleeve.

Governor:

- Con—Continental M. Corp., Detroit, Mich.
- Dup—Eisemann Magneto Corp., New York.
- Han—Handy Gov. Co., Detroit, Mich.
- Hin—Hinkley Motors, Inc., Detroit, Mich.
- K. P.—K. P. Products Co., New York, N. Y.
- McK—E. R. Klemm, Chicago, Ill.
- Mon—Monarch Gov. Co., Detroit, Mich.
- Non—Not Supplied.
- Pha—Pharo Mfg. Co., Bethlehem, Pa.
- Pie—Pierce Governor Co., Anderson, Ind.
- Sim—Eisemann Magneto Corp., New York.
- Tac—Tractor Appliance Co., New Holstein, Wis.
- Wau—Waukesha M. Co., Waukesha, Wis.

Radiator:

- Bue—Bush Mfg. Co., Hartford, Conn.
- Chi—Chicago Mfg. Co., Chicago, Ill.
- E-M—English & Mersick Co., New Haven, Conn.
- Fed—Feddars Mfg. Co., Buffalo, N. Y.
- Flexo—Flexo Mfg. Co., Los Angeles, Cal.
- G & O—G. & O. Mfg. Co., New Haven, Conn.
- Har—Harrison Rad. Corp., Lockport, N. Y.
- Idl—Ideal Sheet Metal Works, Chicago, Ill.
- Liv—Livingston Rad. Corp., Plainfield, N. J.
- Lon—Long Mfg. Co., Detroit, Mich.
- McC—McCord Rad. & Mfg. Co., Detroit, Mich.
- McK—McKinnon Dash Co., Buffalo, N. Y.
- Mod—Modine Mfg. Co., Racine, Wis.
- Per—Racine Radiator Co., Racine, Wis.
- R-T—Rome-Turney Rad. Co., Rome, N. Y.
- Spa—Sparks-Withington Co., Jackson, Mich.
- Std—Standard Radiator Co., Inc., Springfield, N. Y.
- U. S.—U. S. Cartridge Co., Lowell, Mass.

Fuel System:

- B.B.—Penberthy Injector Co., Detroit.
- Car—Carter Carburetor Co., St. Louis, Mo.
- Ens—Ensign Car. Co., Los Angeles, Cal.
- G—Gravity.
- Hol—Holley Carburetor Co., Detroit, Mich.
- John—Johnson Co., Detroit, Mich.
- Mar—Marvel Carburetor Co., Flint, Mich.
- P—Pressure.
- Ray—Beneke Mfg. Co., Chicago, Ill.
- Sch—Wheeler Schebler Carburetor Co., Indianapolis, Ind.
- Std—Detroit Lubricator Co., Detroit, Mich.
- Str—Stromberg Motor Devices Co., Chicago, Ill.
- Til—Tillotson Mfg. Co., Toledo, Ohio.
- V—Vacuum.
- Zen—Zenith-Detroit Corp., Detroit, Mich.

Electrical System:

- †—Generator & Starter at Extra Cost.
- †—Starter not Supplied, Generator at Extra Cost.
- *—Starter at Extra Cost.
- A-L—Electric Auto-Lite Corp., Toledo, O.
- Alc—Cincinnati S. B. Co., Cincinnati, O.
- Apo—Apolo Magneto Corp., Kingston, N. Y.
- Bij—Bijur Motor Appliance Co., Hoboken, N. J.
- Bos—American Bosch Magneto Co., Springfield, Mass.
- Con—Connecticut Telephone & Electric Co., Meriden, Conn.
- Del—Dayton Engin. Lab. Co., Dayton, Ohio.
- DJ—DeJohn Elec. Corp., Toledo, Ohio.
- Dyn—Owen Dyneto Corp., Syracuse, N. Y.
- Eis—Eisemann Magneto Corp., New York.
- Ext—Electric S. B. Co., Phila., Pa.
- G & D—Gray & Davis, Boston, Mass.
- Gou—Gould S. B. Co., New York.
- Hob—Hobbs Battery Co., Los Angeles, Cal.
- L-N—Leece-Neville Co., Cleveland, O.
- N-E—North East Elec. Co., Rochester, N. Y.
- Non—Not Supplied.
- Pol—Prest-O-Lite Co., Indianapolis, Ind.
- Rem—Remy Electric Co., Anderson, Ind.
- RBo—Robert Bosch Magneto Co., New York, N. Y.
- Sci—Scintilla Magneto Co., Sidney, N. Y.
- Sim—Simms Magneto Co., E. Orange, N. J.
- USL—U. S. Light & Heat Corp., Niagara Falls, N. Y.
- Ves—Vesta Battery Corp., Chicago, Ill.
- Wes—Westinghouse Elec. & Mfg. Co., Springfield, Mass.
- Wil—Willard S. B. Co., Cleveland, O.

Clutch and Gearset:

- *—Other ratios optional.
- A—Amidships.
- B & B—Borg & Beck Co., Chicago, Ill.
- B-L—Brown-Lipe Gear Co., Syracuse, N. Y.
- Cot—Cotta Trans. Corp., Rockford, Ill.
- Cov—Covert Gear Co., Lockport, N. Y.
- Det—A. J. Detlaff Co., Detroit, Mich.
- D-G—Detroit Gear & Machine Co., Detroit, Mich.
- Dod—Dodge Brothers Co., Detroit, Mich.
- D-Disk.
- Dur—Durstion Gear Corp., Syracuse, N. Y.
- Ful—Fuller & Sons Mfg. Co., Kalamazoo, Mich.
- H-S—Hele-Shaw, Merchant & Evans Co., Philadelphia, Pa.
- Hoo—Hoosier Clutch Co., Muncie, Ind.
- J—Unit with Jackshaft.
- K—Cone.
- Lon—Long Mfg. Co., Detroit, Mich.
- M-E—Merchant & Evans Co., Phila., Pa.
- M. M.—Mechanics Mach. Co., Rockford, Ill.
- Mun—Muncie Gear Works, Muncie, Ind.
- O—Disk in Oil.
- P—Plate.
- R—Rear Axle.
- S—Separate Unit.
- U—Unit with Engine.
- W-G—Warner Gear Co., Muncie, Ind.

Universal:

- B.G.—Universal Machine Co., Bowling Green, Ohio.
- Blo—Blood-Bros. Mach. Co., Allegan, Mich.
- Det—Universal Products Co., Detroit, Mich.
- Har—Spicer Mfg. Co., S. Plainfield, N. J.
- M-E—Merchant & Evans Co., Phila., Pa.
- M. M.—Mechanics Machine Co., Rockford, Ill.
- Pet—Cleveland Universal Parts Co., Cleveland, Ohio.
- Pic—Carl Pick Co., West Bend, Wis.
- Sne—Spicer Mfg. Corp., S. Plainfield, N. J.
- Spl—Spicer Mfg. Corp., S. Plainfield, N. J.
- The—Thermoid Rubber Co., Trenton, N. J.
- Thel—Universal Drive Shaft Co., Cleveland, Ohio.
- U-M—Universal Machine Co., Bowling Green, Ohio.
- U-P—Universal Products Co., Detroit, Mich.

Front and Rear Axles:

- 1/2—Semi-Floating.
- 3/4—Three-Quarter Floating.
- Clc—Clark Equip. Co., Buchanan, Mich.
- Col—Columbia Axle Co., Cleveland, O.
- Con—Continental Axle Co., Edgerton, Wis.
- C—Chain.
- B—Straight Bevel.
- D—Dead.
- Eat—Eaton Axle Co., Cleveland, Ohio.
- F—Floating.
- I—Internal Gear.
- P—Spur Gear.
- R—Double Reduction.

- Rus—Russel Motor Axle Co., Detroit, Mich.
- S—Spiral Bevel.
- Sal—Salisbury Axle Co., Jamestown, N. Y.
- She—Sheldon Axle & Spring Co., Wilkes-Barre, Pa.
- Shu—Shuler Axle Co., Inc., Louisville, Ky.
- Std—Standard Parts Co., Cleveland, O.
- Tim—Timken Det. Axle Co., Detroit, Mich.
- Tor—Eaton Axle & Spring Co., Cleveland, Ohio.
- Vul—Vulcan Motor Axle Co.
- Wal—Walker Axle Co., Chicago, Ill.
- W—Worm.
- Wis—Wisconsin Parts Co., Oshkosh, Wis.

Brake:

- A—Rear Wheels only.
- B—Drive Shaft and Rear Wheels.
- C—6 Wheel Brakes.
- D—Jackshaft and Rear Wheels.
- E—4 Wheel Brakes.

Springs:

- Amc—American Autoparts Co., Detroit, Mich.
- Arm—General Motors Co., Pontiac, Mich.
- Bea—Beans Spring Co., Inc., Massillon, O.
- Bet—Betts Bros. Sp. Co., Inc., San Francisco, Cal.
- Cha—Champion Auto Sp. Co., St. Louis, Mo.
- Del—D. Delany & Son, Newark, N. J.
- Det—Detroit Steel Prod. Co., Detroit, Mich.
- G-C—Garden City Sp. Works, Chicago, Ill.
- Har—Harvey Sp. & Forging Co., Racine, Wis.
- Lah—Laher Auto Spring Co., Portland, Ore.
- Mar—Maremont Mfg. Co., Chicago, Ill.
- Mat—Mather Spring Co., Toledo, O.
- Mer—E. R. Merrill Spring Co., New York.
- Pen—Penn Sp. Works, Baldwinsville, N. Y.
- Per—Eaton Bum. & Sp. Co., Cleveland, O.
- Row—William & Harvey Rowland, Phila., Pa.
- She—Sheldon Axle & Sp. Co., Wilkes-Barre, Pa.
- S. P.—Spring Perch Co., Stratford, Conn.
- S. S.—Standard Steel Sp. Co., Coraopolis, Pa.
- Tem—Temme Spring Corp., Chicago, Ill.
- Tut—Tuthill Sp. Co., Chicago, Ill.
- U. S.—United States Sp. Co., Los Angeles, Cal.

Steering Gear:

- CAS—C. A. S. Products Co., Columbus, O.
- Dod—Dodge Bros. Co., Detroit, Mich.
- Gem—Gemmer Mfg. Co., Detroit, Mich.
- Han—Hannum Mfg. Co., Milwaukee, Wis.
- Jac—Saginaw Products Co., Saginaw, Mich.
- Lav—Hannum Mfg. Co.
- Ros—Ross Gear & Tool Co., Lafayette, Ind.
- Woh—Wohlrab Gear Co., Racine, Wis.

Wheels:

- Aro—Archibald Wheel Co., Lawrence, Mass.
- A-W—Auto Wheel Co., Lansing, Mich.
- Bet—Bethlehem Steel Co., Bethlehem, Pa.
- Bim—Bimel Spoke & Auto Wheel Co., Portland, Ind.
- Bud—Budd Wheel Co., Phila., Pa.
- Clc—Clark Equip. Co., Buchanan, Mich.
- Day—Dayton Automotive Wheel Co., Dayton, Ohio.
- Dis—Motor Wheel Corp., Lansing, Mich.
- Hay—Hayes Wheel Co., Jackson, Mich.
- Hoo—Hoopes, Bro. & Darlington, Inc., West Chester, Pa.
- Ind—Indestructible Wheel Co., Lebanon, Ind.
- Int—Interstate Foundry Co., Chicago, Ill.
- Jon—Phineas, Jones & Co., Hillside, N. J.
- Kel—Kelsey Wheel Co., Detroit, Mich.
- M-M—Michigan Malleable Iron Co., Detroit.
- Mot—Motor Wheel Corp., Lansing, Mich.
- Mun—Muncie Wheel Co., Muncie, Ind.
- Nor—Northern Wheel Corp., Alma, Mich.
- Pru—Prudden Wheel Co., Lansing, Mich.
- Roy—Royer Wheel Co., Aurora, Ind.
- Sch—St. Marys Wheel & Spoke Co., St. Marys, O.
- Smi—Smith Wheel, Inc., Syracuse, N. Y.
- StM—St. Marys Wheel Co., St. Marys, O.
- Std—Standard Wheel Co., Terre Haute, Ind.
- Van—Van Wheel Corp., Oneida, N. Y.
- Way—Wayne Wheel Co., Newark, N. Y.

Rim Equipment:

- Fir—Firestone Steel Prod. Co., Akron, O.
- Gdy—Goodyear Tire & Rub. Co., Akron, O.
- Hay—Hayes Wheel Co., Jackson, Mich.
- Jax—Jaxon Steel Prod. Co., Jackson, Mich.
- Kel—Kelsey Wheel Co., Detroit, Mich.
- Non—None Supplied.

Motor Bus Chassis Designed Exclusively for Passenger Transportation

For Other Chassis Which Are Recommended and Adaptable for Bus Use, See Models Having Sign (§) in the "COMMERCIAL CAR SPECIFICATIONS."

MAKE AND MODEL	GENERAL			ENGINE		ELECTRICAL SYSTEM				TRANSMISSION			REAR AXLE		FRONT AXLE		TIRES AND WHEELS		Turning Radius (Ft.)		DIMENSIONS (In.)							
	Seating Capacity	Chassis Only	Chassis with Body	Wheelbase	Make and Model	Number of Cylinders, Bore and Stroke	Radiator Make	Carburetor Make	Ignition System Make		Generator and Starter Make	Battery		Normal Speed	CLUTCH	GEARSET	REAR AXLE		Brake Location	Steering Gear Make	TIRES (In.)		Wheels—Make	Floor Height	Overall	Length	Width	
									Make	Volage and Amp. Hr. Cap.		Make and Model	Universal Forward Speeds				Make and Model	Final Drives			Front	Rear						
Ace C.....	30	6500	11500	5000	204	Con 7T	6-41x5 1/4	Own	Zen	Eis	RBo	USL	12-110	35	6.0	D. B-L	B-L 55	Tim 6516	W	A	Ros	36x6	36x6 1/2	Bud	27 1/2	316	90	
Ame 116.....	18	4910	8460	180	Con GB	6-31x5	Per	Zen	Eis	Bos	Wil	6-153	40	.....	D. B-L	B-L 51	Cla B6000	B	A	Ros	32x6	32x6 1/2	Mot	21 1/4	259	83 1/2	
Ame 121.....	22	5110	9280	205	Con 7T	6-41x5 1/4	Per	Str	Eis	Bos	Wil	6-153	45	.....	D. B-L	B-L 55	Cla B720	B	A	Ros	32x6	32x6 1/2	Mot	21 1/4	276	83 1/2	
American-LaFrance 4R	25	8700	10200	196	Own 4R	6-41x6	Own	Zen	Eis	Bos	N-E	Wil	12-140	27	6.0	D. B-L	Own	Own 4R	Own 4R	Own	34x7	34x7 1/2	Bud	27	298	89 1/2		
American-LaFrance 4R	29	9100	10200	226	Own 4R	6-41x6	Own	Zen	Eis	Bos	N-E	Wil	12-140	27	6.0	D. B-L	Own	Own 4R	Own 4R	Own	34x7	34x7 1/2	Bud	27	328	89 1/2		
Brookway EB.....	18	3850	6350	2500	153	Wis SC	4-4x5	G&O	Zen	Eis	L-N	Exi	12-220	42	10.0	D. B-L	B-L 30	Col 53000	B	A	Gem	32x6	34x7	Van	28 1/2	243	64	
Brookway EB4.....	18	4000	6400	2500	153	Wis 6Y	6-31x5	G&O	Zen	Eis	L-N	Exi	12-220	45	11.0	D. B-L	B-L 30	Col 53000	B	A	Gem	30x5	30x5 1/2	Bud	28 1/2	243	64	
Brookway H.....	22	4975	7975	3000	164	Con GB	6-31x5	G&O	Zen	Eis	L-N	Exi	12-220	45	8.5	D. B-L	B-L 55	Wis 6730	.....	A	Ros	32x6	32x6 1/2	Bud	30 1/2	290	74
Brookway J.....	25	6555	10555	4000	185	Con GB	6-31x5	G&O	Zen	Eis	L-N	Exi	12-220	35	6.5	D. B-L	B-L 55	Tim 6516	.....	A	Ros	36x6	36x6 1/2	Bud	32 27/32	295 1/4	90
Brookway JL.....	29	7200	11000	5000	221	Wis H	6-4x5	G&O	Zen	Eis	L-N	Exi	12-220	40	6.5	D. B-L	B-L 55	Tim 6522	1	A	Ros	34x7	34x7 1/2	Bud	26	344 1/4	90	
Clinton 65B.....	30	5925	8700	2725	184	Bud EBU	4-41x5 1/2	Own	Zen	Bos	Bos	Pol	6-180	30	3.0	D. B-L	B-L 55	Tim 6566	W	A	Ros	36x6	36x6 1/2	Bud	30	270	75 1/2	
Clinton 65B.....	35	6600	9600	3000	220	Bud YBU	4-41x6	Own	Zen	Bos	Bos	Pol	6-180	30	3.0	D. B-L	B-L 55	Tim 6566	W	A	Ros	36x6	36x6 1/2	Bud	30	286	90	
Commerce 60.....	25	8200	10200	3000	229	Con GB	6-31x5	Fed	Zen	Bos	Bos	Wil	12-153	35	6.0	D. B-L	B-L 60H	Tim 6516	W	A	Ros	36x6	36x6 1/2	Bud	20 1/2	330	90	
Commerce 65.....	29	8220	10200	3500	242	Con 14H	6-41x5 1/2	Fed	Zen	Bos	L-N	Wil	12-153	35	5.0	D. B-L	B-L 60H	Tim 6516	W	A	Ros	36x6	36x6 1/2	Bud	20 1/2	343	90	
Concord.....	25	8200	10200	3000	242	Bud Bus	6-4x5 1/2	Own	Zen	Bos	L-N	Exi	12-240	42	6.5	D. B-L	B-L 51	Tim 6570S	W	A	Ros	36x6	36x6 1/2	Bud	28	340	90	
Day-Elder 20.....	5200	7700	2500	168	Bud KBU	4-4x5 1/4	6-31x5	Bus	Zen	Eis	Bos	Wil	6-153	35	10.0	D. B-L	B-L 35	Tim 6462	W	A	Gem	38x6	38x7	Van	30	260	90	
Day-Elder 25.....	5600	8600	3000	180	Con GB	6-31x5	6-31x5 1/2	Bus	Zen	Eis	Bos	Wil	6-153	35	7.0	D. B-L	B-L 51	Tim 6462	W	A	Gem	38x6	38x6 1/2	Bud	30	32	260	90
Denby 36.....	30	7000	11000	4000	196	Bud Bus	6-4x5 1/2	Lon	Zen	Eis	L-N	Wil	6-153	35	7.0	D. B-L	B-L 51	Huck 85	R	A	Gem	38x6	38x6 1/2	Bud	27 25/32	283	90	
Denby 36.....	30	7000	10500	3500	216	Con GB	6-31x5	Lon	Zen	RBo	RBo	Wil	12-153	30	.....	D. Ful	Ful GT14	Cla 3D	I	A	Gem	38x6	38x6 1/2	Bud	34	284	91
Dorris M4 Parlor Car.	18	4200	7700	3500	176	Own	6-41x5 1/2	Mod	Str	Bos	Bos	N-E	6-130	40	5.0	D. B-L	B-L 51	Wis DR	B	A	Ros	32x6	32x6 1/2	Bud	32	264	84	
Dorris L6 Parlor Car.	25	6475	11000	3500	224	Own	6-4x5	Mod	Str	Bos	Bos	Wil	12-153	45	5.0	D. B-L	B-L 55	Wis DR	B	A	Ros	36x6	36x6 1/2	Bud	30	309	90	
Dorris L6 (gas elec.)	29	7875	12575	4500	224	Own	6-4x5	Mod	Str	Bos	N-E	Wil	12-130	45	5.0	Non	Non	Wis DR	R	A	Ros	34x7	34x7 1/2	Bud	36	309	92	
Fagool Parlor Car.	22	6770	10550	230	Has 75	Con GB	6-41x5 1/2	Lon	Zen	Del	Del	USL	12-118	35	7.0	D. B-L	B-L 55	Tim 65100	W	A	Ros	36x6	36x6 1/2	Bud	20 1/2	342	89	
Fagool Street Car.	29	5450	10000	2500	190	Con GB	6-31x5	Mod	Zen	Del	Del	USL	12-118	35	7.0	D. B-L	B-L 55	Tim 65100	W	A	Ros	36x6	36x6 1/2	Bud	20 1/2	339	90	
Federal.....	25	5850	8530	2780	172	Yell EZ	4-4x6	Own	Zen	Eis	N-E	Wil	12-90	30	7.5	P. B & B	Det R400	Tim 6412	W	A	Gem	38x6	38x6 1/2	Bud	28	300	90	
Fifth Ave. J.....	25	5850	8530	2780	172	Yell EZ	4-4x6	Own	Zen	Eis	N-E	Wil	12-90	30	7.5	P. B & B	Det R400	Tim 6412	W	A	Gem	38x6	38x6 1/2	Bud	28	300	90	
Fifth Ave. L.....	55	6850	12040	5190	174 1/2	Yell EZ	4-4x6	Own	Zen	Eis	N-E	Wil	12-90	27	5.0	P. B & B	Own L	Own L	I	B	Ros	36x6	36x6 1/2	Bud	33	297 1/2	87 1/2	
Garford 51D.....	29	6500	9900	3400	187	Bud Bus	6-41x5 1/2	Own	Str	Spl	Rem	Wil	6-190	35	5.0	D. B-L	Own 51D	Tim 6516	W	A	Ros	36x6	36x6 1/2	Day	30	284	91	
Garford KB.....	17	3600	6000	2400	180	Wis Y	6-31x5	Lon	Zen	Spl	Rem	Wil	6-135	35	7.3	D. B-L	B-L 31	Tim 5020H	B	E	Lay	32x6	34x7	Day	23	233	84	
Garford CB.....	29	6900	11300	4400	220	Wis Z	6-41x6	Chi	Zen	Spl	Rem	Wil	12-153	57	11.9	D. B-L	B-L 60S	Tim 6521	W	A	Ros	36x6	36x6 1/2	Bud	35	283	91	
Gary 45B.....	40	.....	.....	.....	.....	Bud G16	6-41x6	McC	Zen	RBo	RBo	Wil	12-250	30	4.0	D. B-L	B-L	Tim 6521	W	A	Ros	36x6	36x6 1/2	Bud	26	298	89
Godfrey 50B.....	60	.....	.....	.....	.....	Bud G16	6-41x6	McC	Zen	RBo	RBo	Wil	12-250	30	4.0	D. B-L	B-L	Tim 6521	W	A	Ros	36x6	36x6 1/2	Bud	26	298	89
Godfrey 50B.....	60	.....	.....	.....	.....	Bud BUI	6-41x6	McC	Zen	RBo	RBo	Wil	12-250	30	4.0	D. B-L	B-L	Tim 6521	W	A	Ros	36x6	36x6 1/2	Bud	26	298	89
Graham Bros. YB.....	29	6200	2500	158	Dodge	4-31x4 1/2	6-31x5 1/2	Own	Zen	N-E	N-E	USL	6-135	50	5.0	Cov	Cov	Tim 6521	W	A	Ros	36x6	36x6 1/2	Bud	26	298	89	
Graham Bros. YB.....	29	6200	2500	158	Dodge	4-31x4 1/2	6-31x5 1/2	Own	Zen	N-E	N-E	USL	6-135	50	5.0	Cov	Cov	Tim 6521	W	A	Ros	36x6	36x6 1/2	Bud	26	298	89	
Gramm & Kin. 6-15-3	15	3100	5100	2000	164	Con 8R	6-31x5	Own	Zen	A-L	A-L	USL	6-135	50	5.0	Cov	Cov	Tim 6521	W	A	Ros	36x6	36x6 1/2	Bud	26	298	89	
Gramm & Kin. 6-20-3	20	3800	6300	2500	184	Con GB	6-31x5	Own	Zen	A-L	A-L	USL	6-135	50	5.0	Cov	Cov	Tim 6521	W	A	Ros	36x6	36x6 1/2	Bud	26	298	89	
Gramm & Kin. 6-20-3	25	3800	6300	2500	184	Con GB	6-31x5	Own	Zen	A-L	A-L	USL	6-135	50	5.0	Cov	Cov	Tim 6521	W	A	Ros	36x6	36x6 1/2	Bud	26	298	89	
Gramm & Kin. 6-25-3	25	3800	6300	2500	184	Con GB	6-31x5	Own	Zen	A-L	A-L	USL	6-135	50	5.0	Cov	Cov	Tim 6521	W	A	Ros	36x6	36x6 1/2	Bud	26	298	89	
Grass Premier ZB3.....	22	5150	8600	3500	200	Wau	6-41x5 1/2	Chi	Zen	Eis	Bos	Exi	6-40	2.0	.....	D. B-L	B-L 51	Tim 6566	W	A	Ros	36x6	36x6 1/2	Bud	25	298	89
Grass Premier ZB3.....	22	5150	8600	3500	200	Wau	6-41x5 1/2	Chi	Zen	Eis	Bos	Exi	6-40	2.0	.....	D. B-L	B-L 51	Tim 6566	W	A	Ros	36x6	36x6 1/2	Bud	25	298	89
Guider 20.....	17	3650	6000	2500	152	Con 8R	6-31x5 1/2	G&O	Zen	Bos	Bos	Exi	6-40	2.0	.....	D. B-L	B-L 31	Cla 601	R	A	Ros	32x6	32x6 1/2	Bud	26	298	89
Guider 26.....	20	4800	8400	2000	180	Con GB	6-31x5	G&O	Zen	Bos	Bos	Exi	6-40	2.0	.....	D. B-L	B-L 31	Wis 3720	R	A	Ros	32x6	32x6 1/2	Bud	26	298	89
Guider 36.....	25	6000	.....	.....	204	Bud Bus	6-41x5 1/2	G&O	Zen	Bos	L-N	Exi	6-40	2.0	.....	D. B-L	B-L 51	Wis 3720	R	A	Ros	32x6	32x6 1/2	Bud	26	298	89
Hahn K.....	27	4900	8400	198	Con GB	6-31x5	6-31x5 1/2	Chi	Sch	Bos	Bos	Exi	12-220	5.0	5.0	D. B-L	B-L											

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The lining was designed to fill the need for a lining to be used with mild steel drums and meet the severe requirements of truck, bus and cab service.

Key of abbreviations, page 35

Electric Commercial Cars

Name and Model Number	Total Weight Resting on Four Tires	Chassis Weight—Exclusive of Battery	Minimum Load Capacity	Maximum Load Capacity	Chassis Price	Maximum Speed	Location of Battery	Mileage Per Charge	Motor	Controller	Speeds Forward	Drive	Rear Axle	Springs	Front Tires	Rear Tires	Steering Gear	Wheelbase	Per Cent of Weight on Rear Wheels
Autocar E 1F.....	10000	3650	.....	.....	2400	.....	A	.....	G-E	G-E	5	R	Own	Row	34x4	34x5	Ross	107	60
Autocar E 2D.....	15000	4300	.....	.....	2800	.....	A	.....	G-E	G-E	5	R	Own	Row	34x5	34x6	Ross	120	60
Autocar E 3H.....	18000	4900	.....	.....	3200	.....	A	.....	G-E	G-E	5	R	Own	Row	34x5	34x8	Ross	131	60
Autocar E 4Y.....	26000	6800	.....	.....	4000	.....	A	.....	G-E	G-E	5	R	Own	Row	34x6	36x6	Ross	138	60
Autocar E 5M.....	30000	7200	.....	.....	4300	.....	A	.....	G-E	G-E	5	R	Own	Row	36x7	36x7	Ross	138	60
C-T H-1.....	5600	2400	.....	.....	.....	14	A	55	G-E	Own	4	Own	F	Shel	36x3 1/2	36x4	W	108	67
C-T F-1.5.....	6600	2800	.....	.....	.....	14	A	60	G-E	Own	4	Own	F	Shel	36x3 1/2	36x4	W	94	67
C-T H-1.5.....	6600	2800	.....	.....	.....	14	A	60	G-E	Own	4	Own	F	Shel	36x3 1/2	36x4	W	116	67
C-T F-2.....	8000	3100	.....	.....	.....	14	A	50	G-E	Own	4	Own	F	Shel	36x3 1/2	36x5	W	96	67
C-T H-2.....	8000	3100	.....	.....	.....	14	A	50	G-E	Own	4	Own	F	Shel	36x3 1/2	36x5	W	124	67
C-T F-4.....	11950	4200	.....	.....	.....	12	A	45	G-E	Own	4	Own	F	Shel	36x4	36x4 1/2	W	116	67
C-T A-7.....	17700	5800	.....	.....	.....	11	A	45	G-E	Own	4	Own	F	Shel	36x5	36x5 1/2	W	122	58
C-T F-7.....	17900	6000	.....	.....	.....	11	A	45	G-E	Own	4	Own	F	Shel	36x5	36x5 1/2	W	136	67
C-T A-10.....	22250	6500	.....	.....	.....	10	A	45	G-E	Own	4	Own	F	Shel	36x7	36x5 1/2	W	132	58
C-T F-10.....	22750	7000	.....	.....	.....	10	A	45	G-E	Own	4	Own	F	Shel	36x6	36x6 1/2	W	152	67
Electruck 48.....	8700	3600	2000	3000	2000	15	A	50	G-E	G-E	4	C	Own	Eat	34x4	34x5	Gem	112	60
Electruck 39.....	10400	4200	4000	5000	2500	15	A	50	G-E	G-E	4	C	Own	Eat	34x4	34x5	Gem	122	60
Electruck 27.....	32000	12200	15000	20000	6000	12	A	50	G-E	Own	5	C	Own	Eat	36x7	40x14	Gem	168	70
Lansden Century.....	1700	.....	.....	1250	1850	15	S	60	G-E	Own	4	R	Flot	SP	32x4 1/2	32x4 1/2	Ross	108	50
Lansden Century.....	1950	.....	.....	2000	1850	15	S	60	G-E	Own	4	R	Flot	SP	33x5	33x5	Ross	112	50
Lansden Marathon.....	2900	.....	.....	2000	1850	14	A	50	G-E	Own	4	C	D	SP	36x3 1/2	36x4	Bay	108	60
Lansden Marathon.....	4400	.....	.....	4000	2250	13	A	50	G-E	Own	4	C	D	SP	36x3 1/2	36x3 1/2	Bay	120	60
Lansden Marathon.....	5700	.....	.....	7000	2950	11	A	45	G-E	Own	4	C	D	SP	36x5	36x5 1/2	Bay	133	60
Lansden Marathon.....	7500	.....	.....	10000	3350	10	A	40	G-E	Own	4	C	D	SP	36x4	36x6 1/2	Bay	146	60
O. B-B.....	.....	.....	.....	.....	.....	13	.....	.....	G-E	Own	.....	C	D	.....	36x4	36x3 1/2	Own	107	.....
O. B-C.....	.....	.....	.....	.....	.....	11	.....	.....	G-E	Own	.....	C	D	.....	36x4	36x5	Own	135	.....
O. B-D.....	.....	.....	.....	.....	.....	10	.....	.....	G-E	Own	.....	C	D	.....	36x6	36x5	Own	143	.....
Steinmets 15.....	6800	2200	1000	2250	1800	18	H&S	60	Own	Own	.....	R	Own	Lig	32x4 1/2	32x4 1/2	Lav	114	55
Walker 12.....	1900	.....	.....	1000	.....	15	H&S	50	G-E	Own	4	Own	Tim	Det	32x3	32x3 1/2	Ross	104	66
Walker 15.....	2800	.....	.....	1500	.....	14	A	50	West	West	5	Own	Own	Math	34x3	36x3 1/2	Ross	94	66
Walker 22.....	3000	.....	.....	2000	.....	13	A	50	West	West	5	Own	Own	Math	34x3 1/2	36x4	Ross	101	66
Walker 42.....	4200	.....	.....	.....	.....	13	A	40	West	West	5	Own	Own	Math	36x4	38x5 1/2	Ross	114	66
Walker P.....	6000	.....	.....	7000	.....	11	A	40	West	West	5	Own	Own	Math	36x5	38x6 1/2	Ross	131	66
Walker N.....	6700	.....	.....	10000	.....	10	A	40	West	West	5	Own	Own	Math	36x6	38x6 1/2	Ross	141	66
Walter HD.....	6800	2300	.....	2000	.....	16	A	60	Diehl	G-E	5	B	.....	.....	32x4	32x4	Ross	98	60
Walter EN.....	13200	4400	.....	5000	3100	15	A	50	G-E	G-E	5	Own	D	.....	36x4	36x7	Gem	114	60
Walter EL.....	16800	5000	.....	7000	3700	13 1/2	A	50	G-E	G-E	5	Own	D	.....	36x5	36x4	Gem	132	60
Walter ES.....	23600	7200	.....	11000	4500	12	A	50	G-E	G-E	5	Own	D	.....	36x6	40x6	Ross	150	70
Walter ER.....	28400	7500	.....	15000	4800	11	A	50	G-E	G-E	5	Own	D	.....	36x7	40x7	Ross	150	70
Ward A-211.....	4650	1800	600	1150	.....	14	S	75	G-E	Own	4	W	Shel	Shel	32x3	32x3 1/2	Own	88	56
Ward B-222.....	6000	2300	1020	1700	.....	15	S	84	G-E	Own	4	W	Shel	Shel	32x3 1/2	32x4	Own	91	62
Ward C-211.....	8000	2670	2170	2880	.....	13	S	65	G-E	Own	4	W	Shel	Shel	32x3 1/2	34x5	Own	96	64
Ward E-211.....	12000	3570	4290	5430	.....	12 1/2	S	56 1/2	G-E	Own	4	W	Shel	Shel	34x4	36x6	Own	108	65
Ward G-211.....	16000	4500	6180	7760	.....	11	S	44	G-E	Own	5	W	Shel	Shel	36x5	36x8	Own	120	68
Ward J-211.....	22500	6630	9500	11200	.....	10	S	39 1/2	G-E	Own	5	W	Shel	Shel	36x6	36x10	Own	136	70
Ward M-211.....	30000	8430	13780	15920	.....	9	S	36	G-E	Own	5	W	Shel	Shel	36x7	36x7 1/2	Own	152	71

NOTE: Battery Equipment on all above makes is at the option of the purchaser. Battery Location Abbreviations: A-amidships; H-under hood; and S-under seat

America is Busman's Paradise

(Continued from page 9)

the bus companies are beginning to find the right type of vehicle. This is considered to be something around 2 1/2 tons capacity, with a six-cylinder engine, and of the medium priced type. It should have dual rear wheel equipment and the chassis should be of sufficient length to take care of a twenty-five to thirty-passenger body. All the body building is done in Johannesburg, and this work has now attained a very excellent standard.

Operation of bus fleets of around ten vehicles is very similar to that in America except that even greater attention has to be given to costs. Fares charged are on the zone system, approximately 5 cents for stages from 1 1/2 to 2 miles. A reduction of 33 1/3 per cent is given to purchasers of books of coupons, this being the practice on the street cars as well. Workshops are generally located at the suburban end of the run, and buses are looked over and properly cleaned nightly. Drivers are paid at the rate of from \$4 to \$5 a day, and conductors, who are white youths do not receive more than between \$12 and \$16 a week. Garage help has to be paid at the rate of \$5 to \$6 a day for mechanics, but cleaners and greasers,

who are black, do not receive much more than \$6 a week.

The chassis are naturally higher priced than in America or England, but the bodywork is built at the same or less cost. Depreciation is either taken over a period of three years, or 100,000 miles. In many cases bodies are being built with a view to utilizing them on at least two chassis; this being particularly the case when the chassis are of the low-priced type. Many operators claim that they can show costs of only 27 to 30 cents a mile, and receipts vary between 30 and 36 cents a mile. Buses are very well patronized, and considerable overloads have to be carried. To make the business pay, average three-quarter loads have to be carried each way.

On top of the ordinary costs of running his business, the bus operator in Johannesburg has the bitter fight against the municipality to take care of, and has to face the possibility of a municipal bus fleet being placed on the road in the near future, or a cut in the street-car fares. In spite of all this he keeps cheerful and enlists as much public sympathy by efficient running and by newspaper propaganda as he can. The attempts of the municipality to push him off the road by means of stringent by-laws have been unsuccessful. Late in 1925 the municipality suggested a parley with bus operators, but nothing came of it, for terms could not be agreed upon.

In this matter the bus owners held the sympathy of the public for the question of goodwill was ignored by the municipality who wanted to purchase buses only. The upshot of the matter is that the buses continue to run at a small margin of profit—but still at a profit—and the formation of a municipal bus fleet is still threatened. It is estimated that by the middle of 1926 there will be at least 80 privately-owned buses running in Johannesburg.

In other cities of the Union of South Africa motor buses are being operated under difficult conditions, but are being made to pay, and the more one goes into the matter, the more one realizes the great chances for expansion and profitable operation that lie within the grasp of the American companies.

Ross Conducts Prize Contest

Two hundred dollars is being awarded each month by the Ross Gear and Tool Co., Lafayette, Indiana, for the best letters written by salesmen of Ross-equipped passenger cars, trucks and buses, telling how a demonstration of the Ross Cam and Lever Steering Gear aided them in closing a sale. The contest is being carried on through the columns of the Ross Cam and Lever, a house organ which is sent to every distributor of Ross-equipped vehicles.

How the Relay Drive Works

THE accompanying illustration shows graphically how the Relay Drive Truck axle operates. This truck built by the Commerce Motor Truck Co., made its initial bow to the public during the Chicago Road Show week.

Although the parts used in the construction of the rear axle are practically conventional, the power application is entirely new. Instead of the weight of the truck and its load being a hindrance to starting, it actually helps to get the truck out of any difficult places.

When power is applied to the gear, it rolls forward on the track on the inside of the wheel until the load is thrown far out past the center of the wheel or until sufficient momentum is created, so that the wheel is actually pulled with the truck.

In addition to the tremendous amount of momentum of the truck already under way and the fact that the weight of the load is helping to turn the wheels, the same wheel torque developed by the con-

and the lift of the load is applied well ahead of the center of the wheel.

Because the truck is swung from the center of the wheel, remarkable riding qualities are obtained. Although the road or street may be full of holes, a road shock is never delivered to the chassis because the chassis itself constantly floats along a smooth track. The wheels may drop into the holes or hammer obstructions as they go over them, but the truck chassis never receives a shock.

Indestructible Dual Pneumatic Wheel

A new dual pneumatic wheel for use on buses and trucks has just been put in production by the Indestructible Wheel Company of Lebanon, Indiana.

The new wheels are constructed to carry the well-known makes of demountable rims. The web or center of the wheel proper is made of a stamping from

band which is split to give the proper holding facilities to seat the rim on the wheel by clamping the rim to the felloe. Each rim may be removed separately by this method of mounting. If the outside rim is removed it is not necessary to disturb the inside tire.

Standard tire valves may be used on both tires mounted on this wheel and special tire valves and air hose fittings are not required for inflation.

The manufacturers have placed the new wheel in production after tests extending over a period of two years, during which sample wheels were tested under varying conditions. Seventeen truck and bus manufacturers are now using this wheel.

The manufacturers, the Indestructible Wheel Company, claim the distinction of being the oldest manufacturers of disk wheels in the United States.

Are You Chasing Rainbows?

(Continued from page 13)

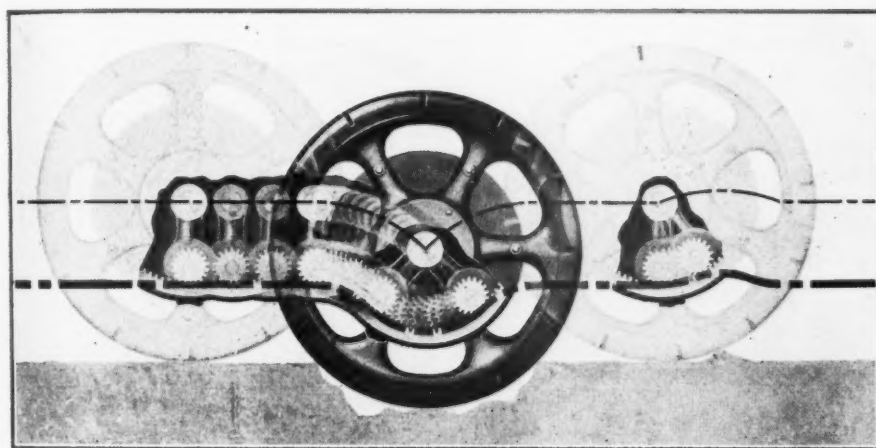
salesmen have held the same positions for many years. And yet these same persons will make changes from one new boss to another, after the motor truck line is adopted.

The elimination of this constant changing habit, would certainly develop more substantial sales forces. Not only this, but considerable time and money would be saved in training the men to the line, not to speak of money and lost sales. Certainly there is plenty of work to be done towards rectifying this condition.



Sprays paint to a straight line

Users of spray paint apparatus will be interested in the new Lobster Claw attachment recently introduced by the Spray Painting and Finishing Equipment Co., 60 High St., Boston, Mass. This attachment permits the finishing of motor truck and passenger car bodies without masking and any desired surface can be protected. With this device it is claimed all or any part of painting can be done which heretofore was performed by the bristle brush.



"Slow Motion" illustration showing graphically the operating process of the Commerce Relay Axle

ventional axle is still available. All of this is accomplished by swinging the truck from the center of the rear wheels instead of setting it rigidly on to the center of the rear wheels.

When the engine power is applied, the first tendency of the truck is to roll forward on a track gear inside of the rear wheels without the rear wheels moving. The power available to move the truck is the same as though the truck were being driven on a hard pavement through a 4% in. diameter tire. With this tremendous power available, it is easily understood why the truck itself can always be moved regardless of the ground condition under the wheels.

There is a total swing in the truck of thirteen inches without the necessity of moving the rear wheels. As the truck rolls forward on its track gear, it also is raised. In rolling forward a tremendous amount of momentum is developed

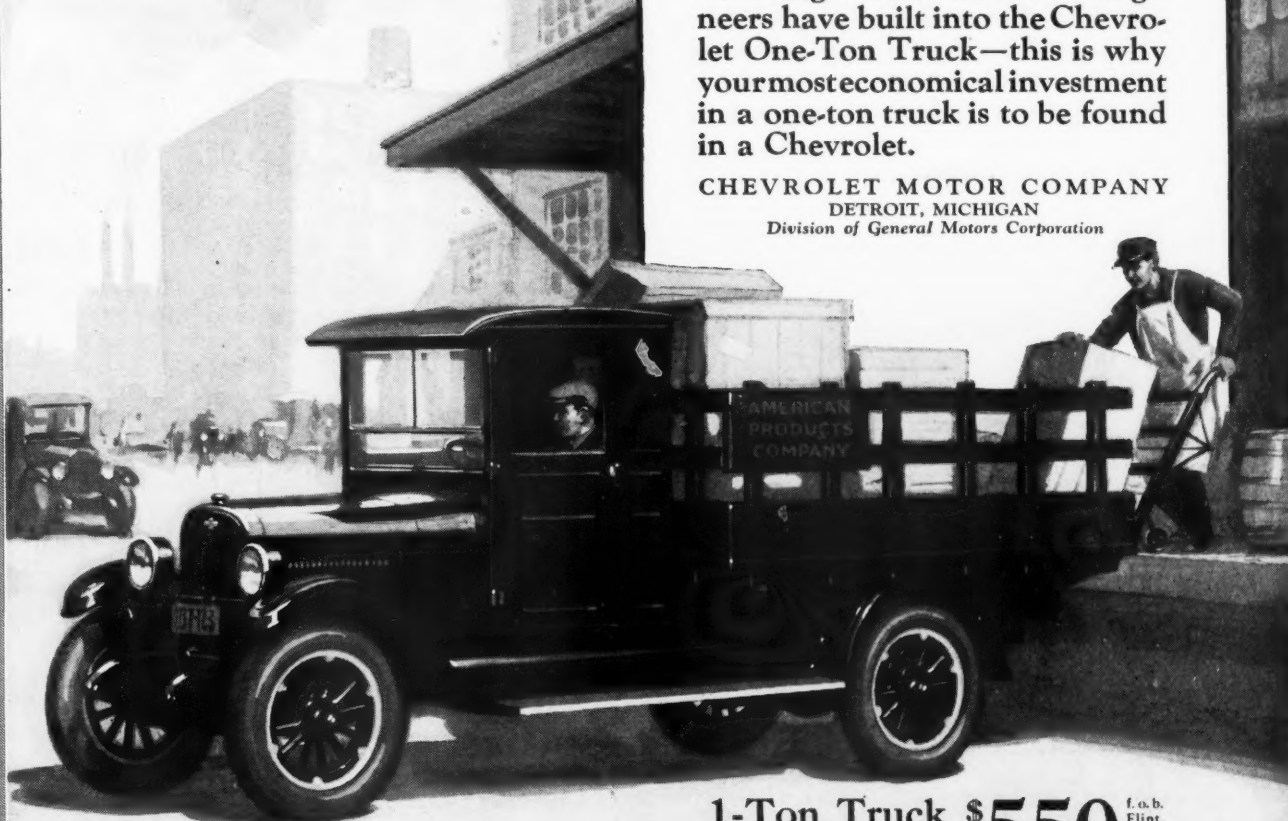
a special rolling of high carbon steel. A master felloe, of special rolled high tensile strength steel, is placed on this stamping.

By the use of this specially constructed felloe band the maximum diameter of brake drums on small tire seat diameter of rims is allowed. The fact that the load line of the wheel passes through the center of the hub and no great amount of offset is needed in a dual wheel is claimed as an advantage of this type of construction.

The wheels are made to fit standard axle hubs, making it possible to economically fit these wheels to standard production hubs. Both demountable rims are mounted on the master felloe bands. The inside rim is mounted directly on the master felloe band with standard wedge rings, clamps and nuts, as is done with single tire wheels. The outside rim is mounted on the demountable felloe

for Economical Transportation

Easy to Load



THIS sturdy One-Ton Chevrolet Truck is easy to load or unload because its floor is level with or lower than practically all loading platforms.

Also, its turning radius is extremely short, enabling the truck to swing quickly into position.

Time saved in loading—speed between stops—the big, powerful economical Chevrolet valve-in-head motor—the extra strong rear axle—and the most rugged truck-type construction throughout—these are some of the many advantages that Chevrolet engineers have built into the Chevrolet One-Ton Truck—this is why your most economical investment in a one-ton truck is to be found in a Chevrolet.

CHEVROLET MOTOR COMPANY
DETROIT, MICHIGAN
Division of General Motors Corporation

1-Ton Truck Chassis **\$550** f. o. b. Flint, Mich.

Also Half Ton Truck Chassis \$395 f. o. b. Flint, Mich.

CHEVROLET TRUCKS

QUALITY AT LOW COST



EDITORIALS



\$15,000,000 Saved—But

IT is estimated that the elimination of the war excise tax on trucks and parts will save the truck buyers of 1926 about \$15,000,000. Certainly this is a victory that the industry can be justly proud of, especially when it is considered that this tax has been kept on for years after other less essential industries have had tax relief.

How much of this money will actually be saved for the truck owners remains to be seen. What the state legislators will do to recoup some of these taxes in the form of increased gas taxes, higher registration fees, etc., is another story. All of which should be a warning to the industry. Because a victory may have been won in this direction does not insure the truck industry immunity from further taxation movements.

State legislators are constantly striving to find ways and means of raising additional funds and the automotive industry seems to be the one industry which most readily yields to additional taxation.

Is Service Business Worthwhile?

DEALERS who look upon the service department as the white elephant of their business should study the following figures. An average taken over a number of fleets of vehicles whose individual units are several years old, showed an annual expenditure of no less than \$600 per annum per vehicle for repairs. The repair business secured by a large dealer in the same territory averages \$11.77 per vehicle serviced per year.

Last year one truck manufacturer, with a production of one hundred vehicles per month, sold over 1¼ million dollars worth of parts, and it is only fair to assume that other makers did their share, not to mention the independent parts makers.

Are the dealers getting their proper share of the maintenance business? It does not appear that they are. The fact remains that the properly equipped dealer service department can usually outbid the back alley repairer and do a better job at the price. As very few truck operators can do the work as cheaply as these general repairers, and only do it because

they are afraid they will not get the quality of workmanship they require, the dealer has a clear field in both price and quality.

Those dealers who are loudest in their outcry against the price-cutting competitor, it is suggested, would do well to give consideration to that part of their business that is swallowing the meager profits they are able to make. Stop the leaks, and add to the prestige of your vehicles by reducing their operating costs.

"Boundary" Specifications

AT the recent meeting of Motor Truck Industries, Inc., of America, John Younger, professor of Industrial Engineering, Ohio State University, adequately summed up the standardization work that this organization was doing, when he used the words "boundary" specifications. In other words this organization is not attempting to upset the whole plan of truck building or the standard specifications which are now in use. What it is aiming to accomplish is the reduction of the great variety of over all and unnecessary sizes which in reality mean nothing to the ultimate design, except added expense for the owner. By standardizing the "boundary" specifications of the various major units that go into a motor truck, interchangeability of various makes of units can be easily accomplished without in any way sacrificing the individuality of any particular unit. The term "boundary" specifications adequately expresses this idea.

MOTOR truck manufacturers have just cause for complaint, when parts manufacturers make changes in design and ship the new designs without notifying the truck builders promptly. A little co-operation in this respect would eliminate useless delays in production and consequent loss of money.

THE stock market break of two weeks ago was taken without a tremor by the motor truck industry, proving that an essential business is not easily affected by the caprices of the professional speculator.

New Fageol Has Westinghouse Drive

A NEW gas-electric bus made its debut recently in St. Louis, whence it started on a 2500-mile tour. It was a Fageol with a standard six-cylinder Hall-Scott engine, similar to the one used in the standard Fageol gasoline coach.

The engine drives a Westinghouse type 177 generator directly through a flexible coupling. While the generator is a self-excited unit a small supply of current is taken from a 12-volt starting and lighting battery to supply separate excitation assuring proper building up of the generator voltage under all operating conditions. The generator has a continuous rating of 33 kilowatts.

Two type V-91-A Westinghouse motors are mounted side by side near the middle of the chassis and connected through two shafts to a dual rear-axle. This construction, however, is not absolutely essential as the motors may be arranged in tandem on one propelling shaft, driving a standard rear axle. Ventilation of the motors and generators is arranged so that air enters and leaves parallel to the shafts of these machines. The design excludes dirt and water from the commutators.

Both generator and motors are equipped with ball bearings, which are lubricated through Alemite fittings, accessibly located.

The control of power is simple. The ordinary method is by foot accelerator only. Two features are, however, worthy of note. A small amount of field excitation is taken from the regular starting and lighting battery when power is on, but this circuit is broken, mechanically, when the engine is allowed to idle, by a small contactor connected to the accelerator. No current is drawn from the

battery except when actually required and there is no tendency for the bus to "creep" after it has been stopped.

A second feature, of the control, is the handle mounted on the steering column directly beneath the wheel, somewhat similar to a throttle lever. This lever enables the driver to regulate the generator field as circumstances may require.

The main controller, which is hand-operated, provides the various motor connections, forward operation, "off" position, electric braking, and reverse. The handle cannot be moved from forward to reverse or vice versa in one movement. It must be stopped at the "off" position before being moved to the position opposite the one just used.

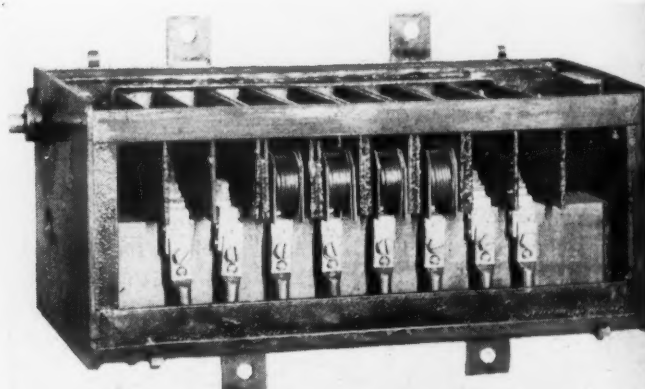
Electric braking, a feature exclusive with electrically driven buses, is provided by disconnecting the engine and generator from the motors and using the motors as generators, the current being taken by a grid resistor. Three steps of brake control are provided for the varying conditions of speed and grade. The action of electric braking equalizes the braking effect on the two rear wheels and sliding of the wheels is almost impossible.

The steel body of the bus was constructed by the American Car Company in St. Louis. The seats, which are plush-covered, are arranged laterally with an aisle in the center and with a cross-seat in the rear. The interior, attractively finished in mahogany and white has lighting fixtures in rows over the seats. The passenger door, of the folding type, is operated by air. An emergency door, at the left of the operator is hand-operated.



Showing location of engine, generator and motors

Below: Main Controller with cover removed.



Five and one-half miles to a gallon of gasoline were made on the trip by the bus, weighing 15,000 pounds with two passengers and baggage, and speeds up to thirty-five miles an hour, according to those in charge of the trip.

Lipman Spray Mist Washer and Cleaner

The Lipman Pump Works of Rockford, Illinois, has recently placed on the market a new and improved spray mist car washing and cleaning unit.

The unit for interior work should be especially interesting to bus operators as it is claimed to do a very thorough job on the upholstery without affecting wear and tear. A special air nozzle is furnished for this purpose.

Grease-encrusted spots are cleaned with a special kerosene gun. A fine water-spray, which is not to be confused with water-pressure, penetrates and loosens dirt on both chassis and body. A second bath with a heavier spray, completely rinses off all dirt and grit without damage to the finish. Finally, a special air-gun to remove all water residue. A final use of the unit is that penetrating oil may be sprayed onto the springs with sufficient pressure to thoroughly penetrate every leaf.

Mixing is accomplished by special valves which are claimed to insure thorough atomization. All valves are readily accessible and are located on their respective tanks. Special construction of the valves eliminate the necessity for two hose lines to the gun. This materially lightens the work of the operator. The water-gun is swivel-jointed.

Air-pressure is furnished by the Lipman Four Cylinder Compressor, gear driven by a 3 h. p. motor, provided with automatic cut-out and unloader. The compressor is water-cooled and its crank shaft rotates on ballbearings.

The Eaton Bumper & Spring Service Company, of Cleveland, Ohio, announces the opening of a warehouse Branch and Service Station at Oak and 16th Streets, Kansas City, Mo. This will become the distribution point for Eaton Bumpers and Springs in the Kansas City territory, which includes the states of Nebraska, Iowa, Missouri and Kansas.

Selden 25-Passenger Parlor Car

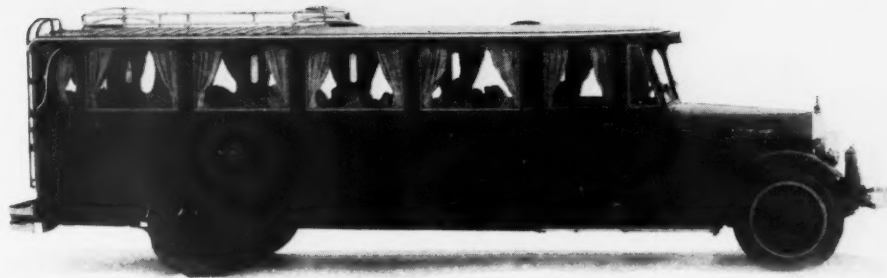
MOUNTED on a special Roadmaster bus chassis, 210-in. wheelbase, the new Selden 25-passenger car bus recently announced by the Selden Truck Corp., Rochester, N. Y., provides unusual comfort and road-ability.

Power is furnished by a six-cylinder Continental 72-hp. engine and final drive is through a Clark heavy duty spiral bevel gear type rear axle. The frame with its conventional kick-up over the rear axle is of heavy construction. Specially designed long, flat, underslung springs are used.

The main spring is very long and flexible to provide easy riding when the bus has light loads. On top of the main spring and held by the same clip is an auxiliary or helper spring, the front end of which comes into contact with a bracket on the same frame as the load is increased, and the rear end of the auxiliary spring engages as the load is added to.

The electrical equipment includes a 12-volt 225 watt generator and starter with special regulator to control the generator charging rate.

The body, which measures 20 ft. long by 84-in. wide overall, is of metal construction. Floor height is 26 in. and headroom 56 in. The interior is finished in satin finish hand-rubbed walnut with head-lining and side panels of



New 210-in. wheelbase Selden 25-passenger parlor car

process leather to harmonize with seat covering. The wicker chairs, window drapes, in fact all interior appointments are very harmonizing in effect. Other details of passenger comfort include coat hooks, mirrors, electric fans, ventilators, Petry heating system, six dome lights, etc. A spacious nicked rack is provided on the roof, to which access is afforded by a ladder.

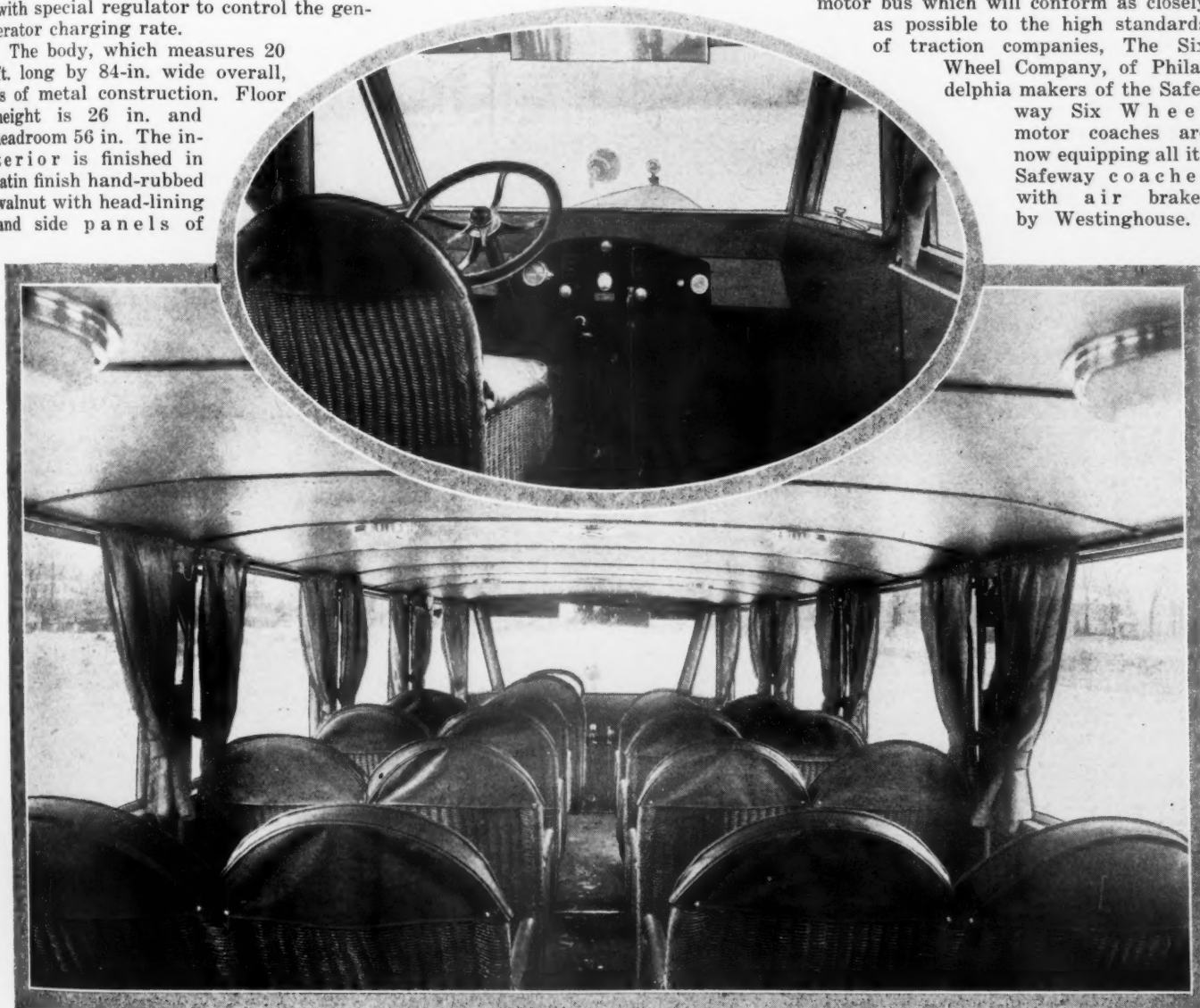
The Selden instrument panel not only provides convenient access to all controls, but gives easy access to the inside for repairs or adjustments. The panel brings all the instruments, switches and fuses within easy reach. The central part of

the panel is an aluminum box hinged at the bottom. This contains all switches for both chassis and body lights and ignition. It also contains the ammeter and three telltail lights. It also provides the driver with all the necessary road information that he may require on driving.

Harmonizing with the central panel are side panels which contain speedometer, oil gauge, instrument lamp, gasoline gauge, and carburetor choke.

Six Wheel Company Makes Air Brakes Standard Equipment

Continuing its policy of developing a motor bus which will conform as closely as possible to the high standards of traction companies, The Six Wheel Company, of Philadelphia makers of the Safeway Six Wheel motor coaches are now equipping all its Safeway coaches with air brakes by Westinghouse.



Interior views showing sumptuously appointed interior and instrument panel, which makes for convenience and appearance

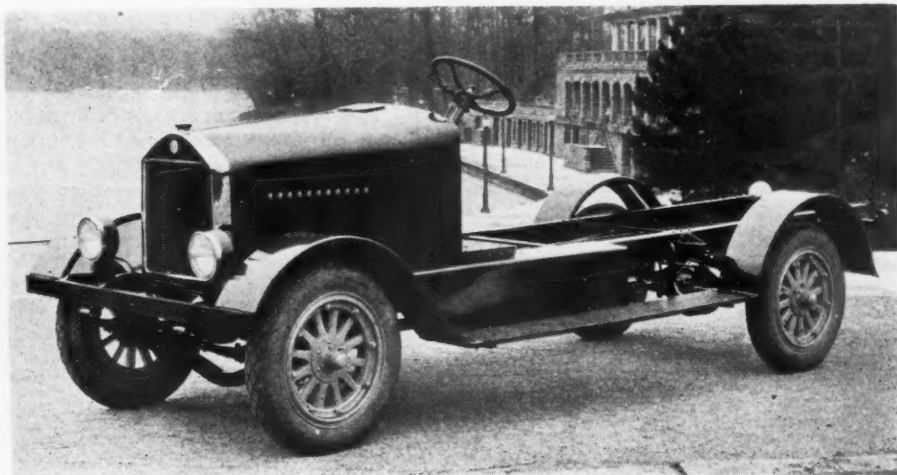
New Atterbury Speed Six Model

UNUSUAL roadability at high speeds, a low loading height, smooth running at all speeds, smooth lines and distinguished appearance, extra weight and strength, 132 in. wheelbase, one hand steering ease and complete equipment are some of the features emphasized for the new 45 mile-an-hour one-ton speed truck, model 26B, just announced by the Atterbury Motor Car Company of Buffalo, New York.

Its roadability is due in large measure to the low hung design, spring design

a large diameter self-aligning ball-bearing mounted in a dust-proof housing. The Atterbury Speed Six is long enough for a nine-foot body.

The standard equipment includes front bumper, heavy rolled steel fenders front and rear, full length sound-absorbing wood running boards, electric starter, drum type electric head and tail lights, instrument panel on dash with transmission driven speedometer, ignition and lighting switch and Ammeter indirectly illuminated, 30x5 cord tires, spare tire



The Atterbury 1-ton, 6-cylinder, 45 mile an hour speed chassis

and length. Both front and rear springs are total 88 in., or 66 per cent of the actual wheelbase. They are designed to set practically flat when under load. The low center of gravity is secured through the use of small diameter, 30 x 5 in. tires front and rear. The loading height—the distance from the ground to the top of the frame—is only 2 ft. 4 in.

In carrying out the low hung fast appearance a six-cylinder $3\frac{1}{2} \times 4\frac{1}{2}$ in. engine provides a speedy getaway in traffic, and an even power flow for heavy pulling and high speeds. Incorporated in the engine are full pressure feed lubrication, Swan type fuel distribution for maximum fuel economy, two-piece crankcase with separate cylinder block and removable head.

Ignition is by battery with manually controlled distributor.

The power plant is housed under a smoothly designed hood following back from the lines of the distinguished nickel-plated radiator to a streamline cowl. Within the cowl a 14 gal. gasoline tank is concealed. This mounting gives absolute protection to the tank from collisions, permits a short positive gravity feed direct to the carburetor and provides ready accessibility for filling through the cowl ventilator. All fuel is filtered through a Stewart gasolator before reaching the carburetor. The new chassis weighs 3200 pounds.

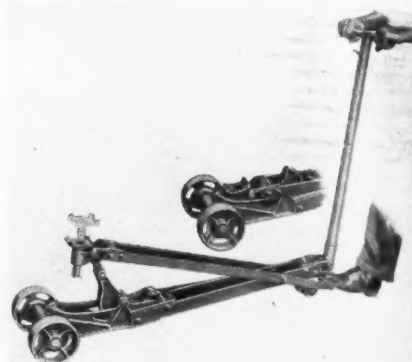
The final drive is by tubular drive shafts with three oil tight universals. The center of the shaft is supported by

carrier with extra rim under rear of frame, tire pump, electric horn, license brackets, Alemite lubrication and full set of tools.

Standard finish is black with red wheels. Hood, cowl, fenders and dust aprons are black enamel baked on.

The New Service Model 25

The general appearance of the new Service model 25 follows the lines of the heavy duty Service models and particularly the Model 25-F. It is somewhat heavier than the latter. It has the same all-steel dash and improved hood lines. This new model announced by Service Motors, Inc., Wabash, Ind., has a longer wheelbase, the same now being 146 ins.



New jack made by the Weaver Mfg. Co., Springfield, Ill.

Weaver Lo-Way Jack

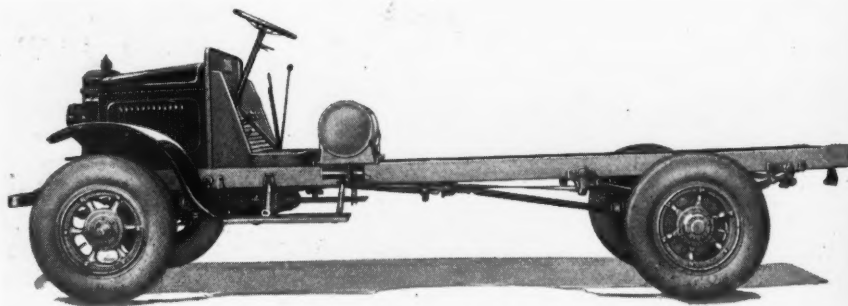
This jack is designed especially for use under cars equipped with balloon tires. It is quick acting, compact, easily operated and amply strong to handle light trucks and passenger cars.

The standard can be dropped to 6 in. and raised to 14 in. and can be screwed up 3 additional inches, making a maximum height of 17 in., a range of lift ample to take care of the lowest and highest axles.

The standard can instantly be run up to the load by pressing down the foot lever and the load lifted by pumping handle up and down. The load is lowered by pulling up latch under handle and continuing pumping action. Handle is always upright when not in use. The wheels can be pivoted by turning handle enabling operator to guide jack under car and guide car while transporting it on jack, an exclusive feature. The jack can be furnished with either. Steel wheels are rubber tired.

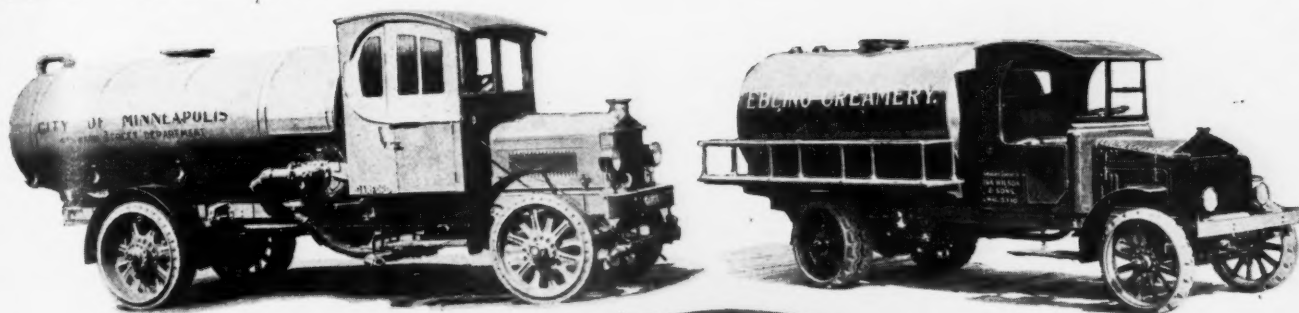
giving a total distance of 122½ ins. from the back of seat to the end of the frame. Standard body length is 10 ft. 6 ins.

A heavier Timken rear axle is used; the frame is heavier and metal universal joints are used in the rear propeller shaft and interchangeable brake rods are provided. The standard tire size is 32 x 6 front and rear instead of 30 x 5.



New Service Model 25 has a 146-in. wheelbase

Resilient, Durable Rolled Steel Truck Wheels



BETHLEHEM STEEL COMPANY, General Offices: BETHLEHEM, PA.
District Offices in Boston, New York, Philadelphia, Baltimore, Washington, Atlanta, Pittsburgh, Buffalo, Cleveland,
Detroit, Chicago, Cincinnati, St. Louis, San Francisco, Seattle, Los Angeles

BETHLEHEM

U. S. Paint Spray Equipment

Hand brush or dipping methods for painting today has been rendered obsolete by modern means. Paint spraying has supplanted the old method as being not only more economical but more efficient as well. This method is highly desirable and profitable for practically all paint work where the hand is required. One operator can produce approximately four times more work than by hand brush, saving material because of even application and effecting a much better finish.

The United States Air Compressor Co., Cleveland, Ohio, can accommodate any demand with its several various capacity models of paint spray equipment. This equipment is especially desirable in repainting truck work and will capably handle lacquer, Pyroxylin enamel and paint.

The model SC-303 consists of 3 x 3½ in. air-cooled single cylinder compressor; powerful 2 hp. water-cooled gasoline engine; high quality leather belt; 22 gallon receiver tank suitable for 150 pounds working pressure; automatic unloader which maintains a constant pressure of 90 pounds while unit is in operation. Mounted on an all-steel, easy running, sturdily constructed truck with a low center of gravity and sufficient size to accommodate one pressure feed unit as listed on page 4.

The other models, while primarily the same are adapted for auxiliary or other specific purposes. The accompany illustration shows equipment which is not being built at the present time, but it does illustrate the simplicity with which it is handled. The new model is hopper cooled instead of air-cooled. The diagram shows layout for permanent installation.

The U. S. Air Transformer Assembly is an interesting unit of the Spray Equipment. This assembly provides means for regulating the pressure and eliminating the moisture, oil, dust and dirt from the fresh-air supply before it reaches the spray gun, and is necessary with each installation. The paint spray gun is a universal type and can be used for practically any kind of paint job on limited surfaces, such as truck bodies. It requires approximately six cu. ft. of free air half minute under usual working conditions. It has a pistol-grip and trig-

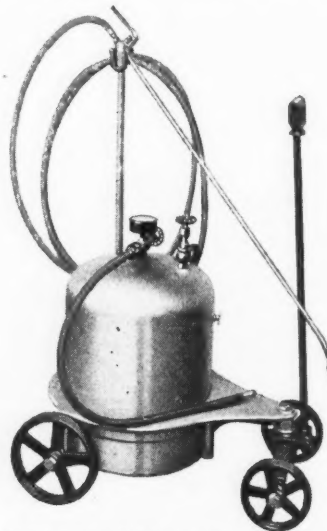
ger control and is quickly adjustable for round, narrow or wide spray, by simply adjusting valve lever on air cap. All parts interchangeable.

Where quantity production is desired pressure feed fluid containers are recommended. The distributing head of diaphragm of this container gives accurate control of air pressure on material at all times. This pressure varies according to the consistency of the material being used.

Lipman Spring Lubricator

Following on the heels of the improved type of spray mist car washing and cleaning unit recently placed on the market, the Lipman Pump Works, Rockford, Ill., now announces another item of automotive service equipment. The latest offering is a new portable, penetrating oil unit for lubricating springs through air pressure.

The new unit consists of a sturdy 12-gallon steel tank mounted on a wheeled



Lipman portable spring lubricator

metal base. Its air tank which is filled the same as a tire, provides instant air pressure. It also provides sufficient pressure for lubricating 3 to 5 vehicles. An automatic air pressure agitator keeps graphite constantly mixed with the oil.

The maker states that this unit drives oil between the leaves of a spring at the saving of time and expense. Spring lu-

brication is said to be reduced to a matter of minutes. Its portability and self-sufficiency enables it to be used anywhere around a service station, or filling station.

The unit is moderately priced, listing at \$45.00 for the standard size and \$50.00 for the oversize.

A special oversize 21-gallon tank may be purchased where desired for a slightly increased price.

For Handling Heavy Tires

To open up a big pneumatic casing for inspection or repair has always been one of the toughest jobs in any shop where tires are handled.

The old method of prying the beads apart by brute force long enough to insert a wood block between the beads now gives way to a more scientific method.

In the Wadsworth Heavy Duty Tire Spreader two bead hooks are spread on a right and left thread by simply turning a crank.

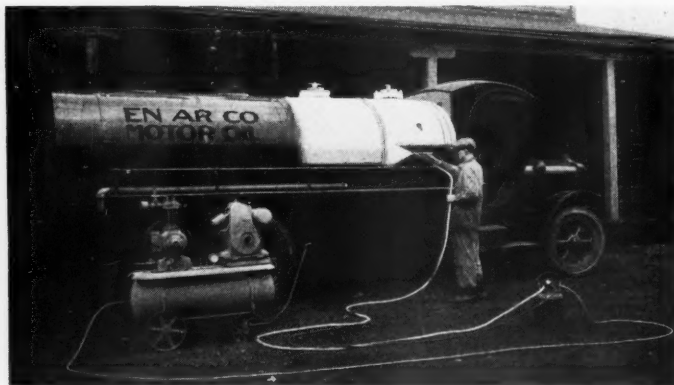
They are used in pairs. With a spread of from two to twelve inches any pneumatic truck tire can be spread open and held securely while internal repair is being made. The entire inside surface is clear for buffing, cleaning and cementing.

When the job is ready to be released, turning the handle backward allows the beads to come together gradually until the spreader can be removed. There is no danger of the tool letting go suddenly and injuring the user.

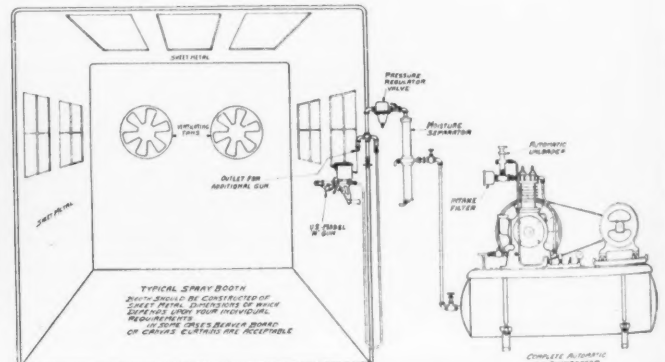
Made of malleable castings except the spreader screws and guide bars, which are of cold drawn steel, these tools are practically indestructible.

They are made by the Wadsworth Core Machine and Equipment Company, Akron, Ohio.

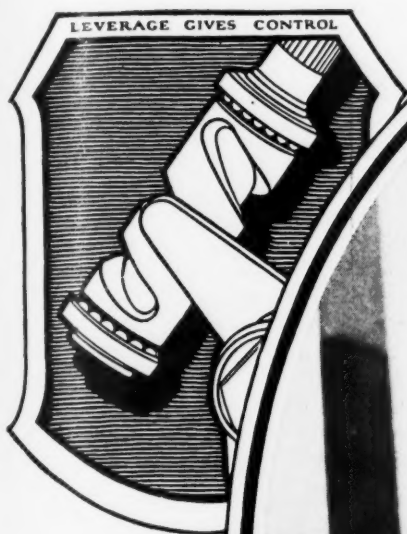
The first trainload of motor trucks to be received in North Carolina by a distributor and the first such shipment ever forwarded from the Graham Brothers factory, at Evansville, Ind., was received at Winston-Salem, N. C., by the Norfleet-Bagge Company, distributors. The train was composed of 24 freight cars and the shipment included 100 motor trucks, 75 of which were delivered immediately to dealers.



Applying a new coat of paint with U. S. equipment



Layout for fixed U. S. spraying equipment



ROSS TAMED THE WHEEL FOR HIM

THE Ross Cam and Lever Steering Gear makes a bus twice as easy to handle, and transforms the driver from a steering wheel wrestler to a contented, happy employe. Ross makes the biggest bus easy and safe to handle. It keeps the driver fresh for his other duties, and puts a friendly smile on his face. All of which benefits public, driver and owner. Ask us more about Ross Cam and Lever steering.

ROSS GEAR AND TOOL COMPANY . . Lafayette, Indiana

ROSS
CAM and LEVER  **STEERING GEARS**

EASIER STEERING LESS ROAD SHOCK

C. C. J. SHOP IDEAS

THIS page is primarily designed to help service station repairmen in exacting economies in time, labor and money. Salesmen, however, can also profit by scanning over these practical

hints. The average buyer of today is more conversant with the important details of truck operation and maintenance than ever before. A money-saving idea will often result in a sale.

Commercial Car Journal will pay as much as five dollars for each new idea which it accepts. Simply tell us exactly how it is done and send a rough pencil sketch showing clearly the method employed or the device used.

No. 53—A and B—Spark Plug Cleaner

A worn $\frac{1}{2}$ in. hacksaw blade $\frac{1}{32}$ in. thick can be shaped to serve as a spark plug cleaner and gage. Remove teeth and grind edge to a square scraping surface by an emery wheel. The blade should be tapered for cleaning purposes. The $\frac{1}{32}$ in. thickness of the blade permits it to be used for measuring gap distances.—H. O. Currey, Elgin, Wisc.

No. 54—Servicing a Bushing

The sketch suggests a method of saving bronze or babbitt bushings where it is impossible to replace them.

Saw a slot lengthwise in the bushing and place a shim around the entire circumference of the bushing. Crimp lower end to prevent crawling. Then press bushings back into place. Finally ream to proper size.

The tinning process is suggested where wear is only slight. After receiving a heavy coat of solder, proceed as above. Another method is by pressure. This does not require the removal of the bushing. Place in press as shown and apply pressure to both ends of the bushing. This process, which will close in the bushing, has been found satisfactory on wrist pin bushings.—Reader.

No. 55—Straightening Frames

A tool made from an old drive axle, forged in the manner illustrated, has been found satisfactory for straightening buckled frame members. One end is upset and squared, into which a slot $\frac{5}{15}$ in. wide is shaped. This tool straightens the legs of channel members. For correcting the main body of a channel member, back the inverted section against something solid and apply blows against the inside of the channel.—M. L. Koplak, Pottsville, Pa.

No. 57—Oil Drip Stand

Waste, dirt and grease wherever oil is handled by a number of men, is eliminated by means of the device shown in the sketch. It consists of a good sized tin box, one side of which has a self-closing lid. The base is equipped with a $\frac{1}{4}$ in. grating and the lower part of the box slopes to a point in the center to serve as a sump. At intervals the accumulation may be drawn off through a drip faucet. Wm. P. Schaubert, Atlanta, Ga.

No. 60—Drill and Tap Rack

To offset the possibility of using the wrong tapping drill for a certain tap a drill and tap rack is suggested.

The rack should have compartments to accommodate starting, following and plug taps, and tapping and body drills.—J. A. Yates, Camden.

No. 59—Fitting Engine Gaskets

When applying a new gasket between the engine block and cylinder head a

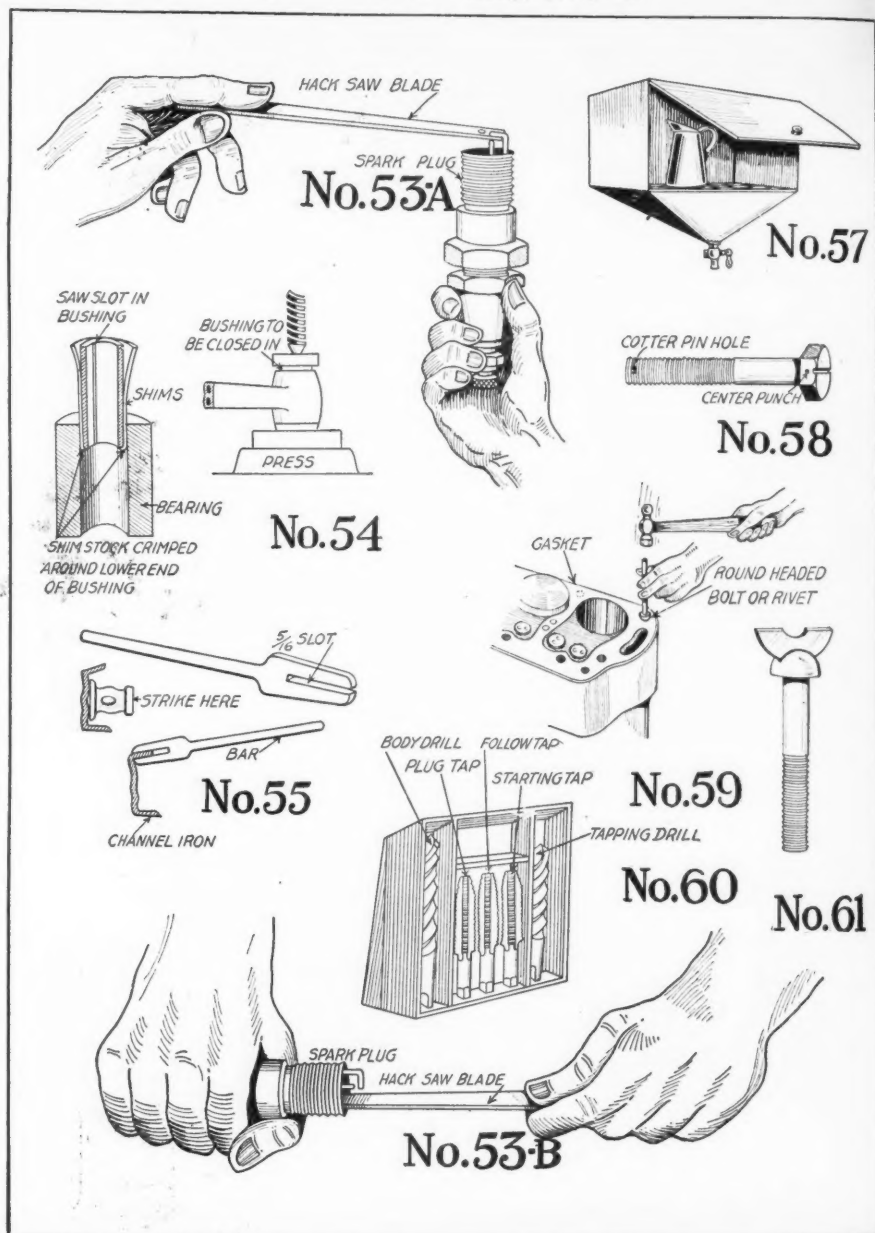
clean cut can be secured by the method indicated in the sketch. Shellac gasket in position. Take a round headed bolt and a hammer and drive the round head of the bolt down against the gasket above the holes.—Reader.

No. 58—The Cotter Pin Hole

Insertion of Cotter pins can be considerably simplified where holes are unexposed by marking the end of the bolt as illustrated. Cut a slot across the head of the bolt that will parallel the Cotter pin hole. This will indicate the direction of the latter.—M. A. Firsh, Newburg, N. Y.

No. 61—Home-Made Thumb Screw

Where frequent adjustments are required, the thumb screw constructed in a manner shown in the illustration is suggested. It consists of a half of a metal washer of the size desired which is soldered in a previously made slot in the bolt as illustrated. Use a file to remove burrs from the sawed edges.—Elmer Haag, York, Pa.





- Only 30 Inches from the Ground !

SIX **FAST FREIGHT**

A specially designed, low-hung van body for long distance moving, mounted on six cylinder van chassis—

The RUGGLES "Six" Fast Freight meets a long felt need for lower body mounting with lower center of gravity and better distribution of weight.

Designed and built expressly for hauling service where low loading is needed, every mechanical detail has been developed with extreme care for utmost satisfaction and dependability under every working condition.

The wheelbase is exceptionally long, enabling an extra large body without objectionable overhang, which, combined with the ideal balance and proper distribution of weight, eliminates rocking and swaying on the road.

Six cylinder power, speed and flexibility insure faster delivery, greater earning power and wider range of service. Long distance movers will appreciate the many advantages of this chassis. Every unit from the dependable six cylinder motor to the RUGGLES full floating double-reduction rear axle is built to stand the strains and stresses of high speed operation under full load.

Standard bodies, built in our own body plant, include moving van, stake rack and express—all with body bed only 30 inches from the ground.

Write for full information.



The floor is just the right height for easy loading without lifting.

All Bodies Built Complete in Our Own Body Plant

Because all bodies are built complete in our own plant, we are enabled to render RUGGLES Truck users the fullest co-operation in the design and construction of bodies for each individual requirement, and making possible an undivided responsibility

RUGGLES MOTOR TRUCK COMPANY, Saginaw, Michigan, U. S. A.

RUGGLES

A COMPLETE LINE OF "SIXES" AND "FOURS" FOR EVERY HAULING NEED

Motor Bus Design and Operation

Over 200 gather at the Metropolitan Section of the S. A. E. to engage in this timely discussion

THE subject of Motor Bus Design and Operation proved an exceptional drawing card at the Metropolitan Section meeting of the S. A. E. last month.

Attendance approaching 200 exceeded the committee's expectations and included not only local engineers but also men from other cities as far away as Toronto.

The Gas-Electric

With Neil MacCoull, of the Texas Co., as chairman there was frank discussion of the whole field of bus design and operation with the one exception of that ticklish subject—the gas-electric bus. On that subject there were several pointed questions and some good-humored and entirely explicable side-stepping on the part of Dean J. Locke, who as staff engineer for the vice-president in charge of railway operation of the Public Service Railway Corp. of New Jersey might have been expected to enlarge on the gas-electric, since that concern recently placed a large order for buses of this type. But Mr. Locke frankly admitted that he was not in a position to discuss the gas-electric, although he might later when the company had learned more through its own experience about this type.

A. E. Hutt, president and general manager of the Westchester County Bus System and also of the Borough Motor Bus Co., after describing the need of a comprehensive bus system in that county and his concern's efforts to meet that need, and also describing his own plans for a double-deck bus with raised aisle platform, remarked that he saw no reason why the use of the gas-electric type could not do away with the necessity of the chassis.

The Single Decker

In his paper, Mr. Locke, dwelt on design and operation of city buses in contradistinction to the interurban type. He spoke especially from the standpoint of experience with the single decker. City buses must have more head-room for tall persons—this point being based on the supposition that the five-cent fare line could not afford to provide a seat for every passenger, with consequent necessity of standing room.

On this point Mr. Hutt later insisted that it was a great mistake to design and operate buses on a street car basis with standing room, rattan seats and other features common to the trolley. He believed that the popularity of buses would continue to increase in proportion as the vehicles offered passengers facilities entirely different from and more luxurious than the trolley. This was one of the

outstanding attractions of bus riding and manufacturers and operators could not afford to ignore or discount it.

The Balance Sheet

Mr. Locke's reply was reasonable enough. In New Jersey the Public Service lines were limited to the five-cent fare. Short hauls were common and the tendency to "trolleyise" bus design, at least to a reasonable extent, was a reflection of the commendable and not uncommon desire of the operating company to at least break even on its balance sheet. Hence more passengers were provided for per bus, aisles were larger, and seats near the entrance door were longitudinal and facing to encourage incomers to fill up the cross seats in the rear first.

Lighting vs. Congestion

Mr. Locke in discussing convenience of entrance and egress commended the desire of certain operators to obtain buses with exit doors at the rear, thus avoiding congestion at the front door when passenger influx and outflow meet. Low level floors not more than two steps to the ground also facilitated passenger interchange.

More rigid seats with both seat and covering designed for durability was necessary both for utility and economy. Lighting was a most important feature. The New Jersey Utilities Commission requires five candle-power lighting per passenger and the new Public Service buses were equipped to give 6.8 candle-power per person. Discussion brought out the desirability of sufficient step lights. A test had shown that good step lights would save one hour in eight of operating time through speeding up passenger interchange. The necessity of providing space for generators sufficient to insure good lighting was also stressed.

Mechanical Improvements

He emphasized the importance of rugged frames, springs and axles and the importance of a snappier engine in the city than in the interurban bus, with gear ratios changed for high acceleration and low running speed. Designers should also remember that the city bus offers more tendency on the part of drivers to abuse clutch and transmission. More smoothly running engines were needed because vibrations and shocks originating in the engine were the chief causes of body wear.

Alexander Shapiro, of the North American Co., a bus system in the District of Columbia, discussed intercity high speed bus operation in the light of his experience in that field in Wisconsin. The exterior of the bus should show pleasing lines and colors because first

appearances attracted or fended off passengers. The public expected comfortable seats, smooth running, sufficient ventilation and, in colder climes, plenty of heat.

The Traveling Salesman

Designers should bear in mind that the backbone of intercity bus operation was the traveling salesman who expected ample baggage room, liked a smoking compartment and would revert to trolleys or railroads if running schedules were haphazard. More frequent operation with smaller buses was more profitable than less frequent trips with larger types; and it was easier to educate the passenger public to an every-hour schedule than to one with intervals of two or three hours.

Replacement Parts

Parts must be easily accessible, replaceable and obtainable. Breakdowns on the road demanded prompt attention for the preservation of schedules. Such prompt attention was impossible if the manufacturer failed to provide easily accessible replacement parts distribution point, or if the accessibility of parts was so difficult as to cause unnecessary loss of time.

Accessibility of the gas tank was also important. Under the driver's seat the tank for refilling required removal of the seat, a hose across the entrance floor, probably gasoline leakage on that floor and perhaps a damage suit for a soiled dress or pant leg. Under the rear end the gas tank required a long gas line to the engine and in freezing temperatures this caused trouble.

The driver's seat must be comfortable. If it were not the difficulty of holding good labor was multiplied.

Operation and Maintenance

Maintenance of efficient service and dependability of schedules were the bases of intercity bus operating success. For proper maintenance the operating department and the garage must be persuaded to work together and stop passing the buck back and forth. Mr. Shapiro emphasized the value of a system by which the driver is required to jot down on a conditioning report card, carried with the bus through the day, everything which he thinks needs attention. At night the repair foreman is required to examine each card, to see that the repairs are made properly, and to O.K. the card to that effect before the bus goes out in the morning.

Discussion developed opinions as to the relative value of aluminum and steel side panels. Mr. Locke leaned towards the aluminum type as more easily giving to dents in side collisions and thus protecting the construction. His company has replacement aluminum panels all ready for substituting for those damaged in collisions, and he said this was an important item in time-saving. There was some discussion of tires and the necessity of designing buses to take proper tire equipment was emphasized.



Next month you'll know his name

~ and here's what
he thinks about
the repair game.

"I don't pretend—and neither do you—that taking down rear axles and lifting off cylinder heads is the world's prize pastime. But it's a good, honest, useful way to keep up the habit of eating regularly. And, by golly, there's solid satisfaction in taking a limping engine, tuning 'er up, and sending 'er off with that smooth, easy hum that says 'all O. K.'"

"Of course, you're bound to run into a certain percentage of grief

with chronic kickers, dead beats, and jobs that take longer than you estimated.

"But every now and then someone discovers a workable way to cut down the percentage—and I think I can pass along one or two tips in this line myself. Possibly you can pass back a few tips of your own, and among the whole crowd of us we'll make the game a lot more profitable for everybody—including our customers."

Watch for what he has to say next month

KING QUALITY PRODUCTS, INC.

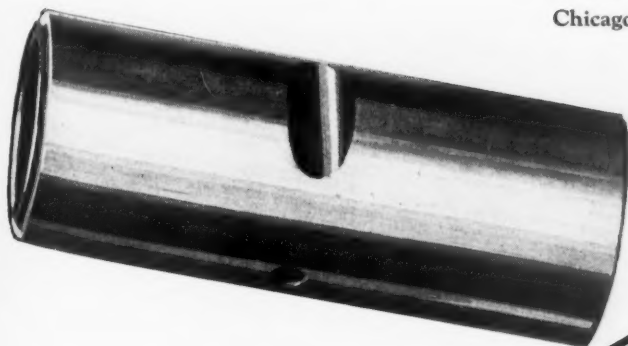
Dept. D

Buffalo, N. Y.

Chicago

San Francisco
Bridgeburg, Ont.

Kansas City



DUPLEX

WHERE DUPLEX SERVES IT SAVES

The Truck Dealer is a Transportation Engineer

He must furnish reliable, rugged and speedy transportation—each unit adapted to the particular requirements of the haulage problem involved.

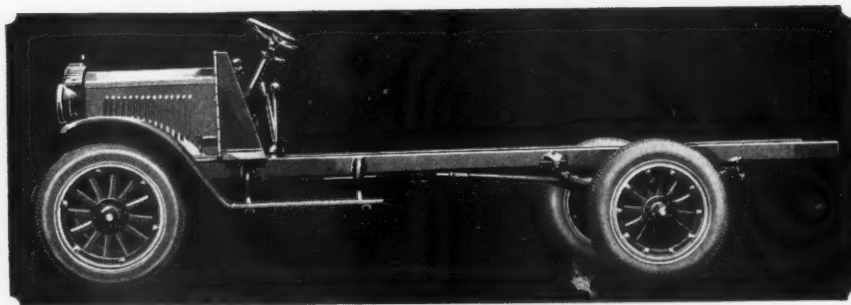
Duplex manufactures a line of motor trucks engineered and built on 20 years' experience in supplying the needs of every conceivable kind of transportation.

Dealers who are seeking a solid background on which to build a permanent business will find that Duplex gives all that experience, good workmanship, and modern engineering has to offer—plus.

It is worth your while to investigate.

Manufacturers of
Rear Drive Motor Trucks
of 1, 1½, 2 and 3 ton
capacity. Also the
famous 3½ ton
"Four Wheel
Drive" Truck

Model A
Capacity, 4000 pounds



DUPLEX TRUCK COMPANY • LANSING MICHIGAN

Meet Excavating Test We are motor transportation engineers specializing in dump work, such as hauling building materials, road work and general excavation; a line of business that will subject any solid tire to as severe a strain and test as is possible Our first Goodrich De Luxe Tractors are now on their 14,000th mile, despite decidedly hard usage and abuse. This performance, together with wonderful resilience and traction, have resulted in our now having nine of our fleet De Luxe Tractor equipped. Pawton & Martin, Cleveland, Ohio.



*"Best in the
Long Run"*

They Dig in for Profit

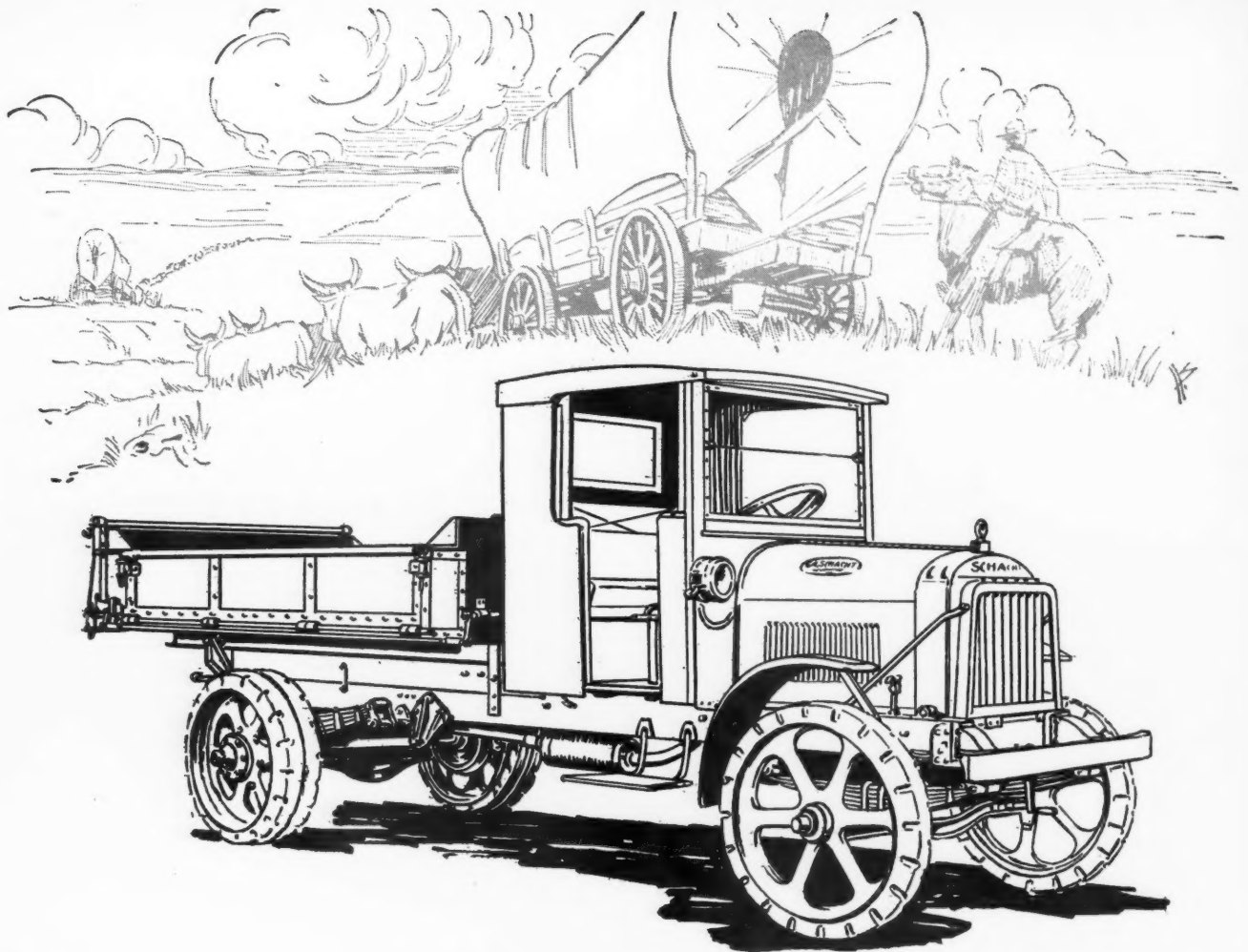
Traction is the crying need in all heavy duty trucking and long hauling Traction is the other name of the Goodrich Tractor-Type Cushion Tire . . . It grips and carries the load Its unusual performance in excavating, on up-hill pulls, in all kinds of exceptional work, is praised in scores of letters from men who have benefited by the unique working character of Goodrich Tractors.

[To round out economical and efficient service in the operation of trucks and buses, Goodrich provides the famous De Luxe cushion smooth type, Goodrich Semi-Pneumatics and Goodrich Silvertown Heavy Duty Cords.]

THE B. F. GOODRICH RUBBER COMPANY, Akron, Ohio
In Canada: Canadian Goodrich Company, Ltd., Kitchener, Ontario

Goodrich

De Luxe TRACTORS



Pioneers of Motor Transportation

SCHACHT TEN-SPEED TRUCKS

Back of the achievement of producing "the Most Efficient Truck in America," is our record of more than a quarter century's experience in automotive transportation.

From the early days of the gigantic motor vehicle industry, the SCHACHT name has been identified with the best in freight transportation units.

Although the pioneering days of trail blazing are past, SCHACHT engineers and designers continue to maintain that leadership which is now expressed in the new SCHACHT Ten-Speed Trucks. These Transports of the Highways have been chosen by thousands of the large private and public institutions to solve their hauling problems.

SCHACHT Ten-Speed Trucks are from 1 to 7½ ton capacity. Folder C contains facts and figures of interest to Truck Distributors—sent upon request.

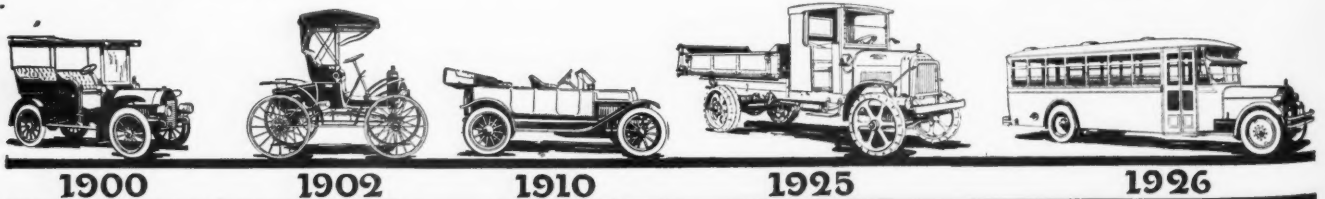
THE G. A. SCHACHT MOTOR TRUCK COMPANY

"Pioneers of Motor Transportation"

New York Branch
Van Dam, Rockdale and Nelson Sts.
Long Island City

Cincinnati, Ohio

New Jersey Branch
400 New Street
Newark



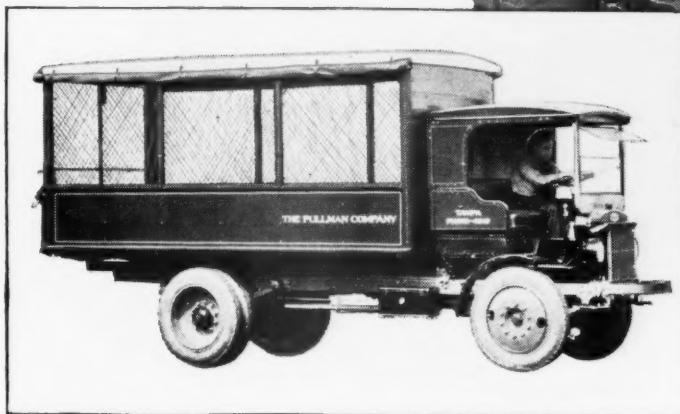
You're selling economical transportation

Here it is . . .

with

BUDD-MICHELIN

Dual Wheels

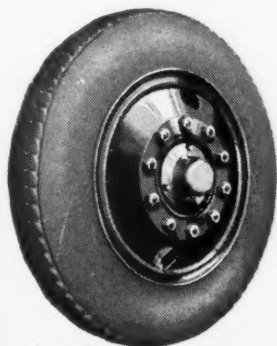


YOU know how pneumatic tires save the truck, the load, and the driver. When you sell a truck on hard tires, you must feel that there is some special reason why solids are going to give better service on that particular job. Perhaps your attitude is a "hangover" from your experience with giant pneumatics . . . Perhaps you think regular size pneumatics won't carry such a load, or are afraid of their dependability in such service.

These are bugaboos that have been banished by pneumatics on Budd-Michelin Dual Wheels. This combination has put the bus industry on pneumatics, because it brought all the advantages of riding on air, with none of the former grief. Fifteen to twenty thousand miles from a set of tires—that's the average. And *regular* size pneumatics under any load within reason.

Now truck operators are profiting from the experience of the heavy bus industry. They are using Budd-Michelin Dual Wheels and pneumatics, and getting greater speed, better traction, less wear on the truck, fewer repairs, better service from their drivers; longer hauls in a day, or more stops in city and suburban work; security for fragile loads; *and* unbelievable tire mileage.

This swing to Budd-Michelin Dual Wheels and pneumatics is not a flurry, but a definite movement that is going to stabilize truck transportation—give the truck a greater usefulness and broader acceptance than it has ever had. The time to get aboard is *now*—on your next order. The manufacturer of your truck will deliver any job on Budd-Michelin Dual Wheels and pneumatics.

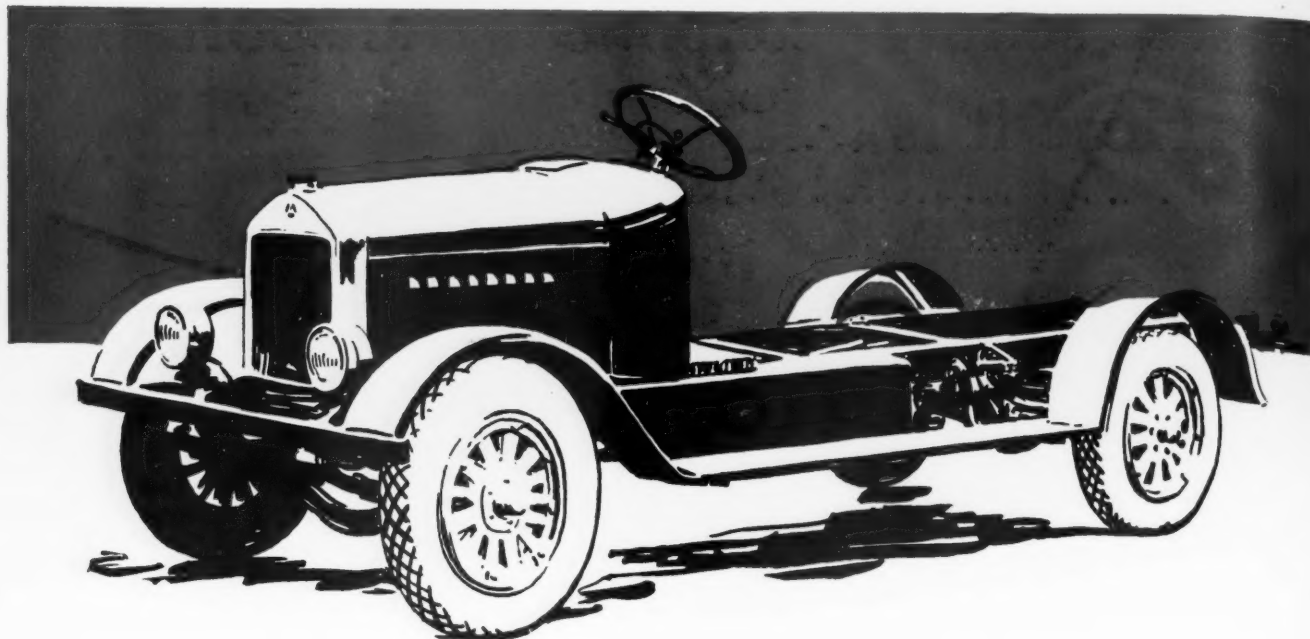


BUDD

WHEEL COMPANY

Philadelphia

The Budd-Michelin equipment — two Budd - Michelin single wheels in front, two Budd-Michelin Dual Wheels in the rear (pairs of single wheels acting together as units). All wheels completely interchangeable either as units or as halves of Duals. One spare.



Look at the New Atterbury Speedy 6

IT'S a new six-cylinder, 1—1 $\frac{1}{4}$ -ton high-speed truck that looks fast and *is fast*. Smooth lines, low hung, easy steering, it has six-cylinder speed, six-cylinder power and six-cylinder performance.

Here are some of the features that make it the greatest speed truck that rolls on wheels this year—six-cylinder motor, 102" body capacity, 132" wheelbase, 30" x 5" tires, electric starter and lights, transmission-driven speedometer, bumper, center bearing for propeller shaft, spare tire carrier, fenders front and rear, and full-length running boards.

\$1495

at Buffalo

Add those features all up for the price of \$1495 and then remember that the Atterbury Speed Six is the headliner of a complete family that goes all the way up to 7 tons. You owe it to yourself and your business to know about the New Atterbury Speed Six. Write for the whole story.

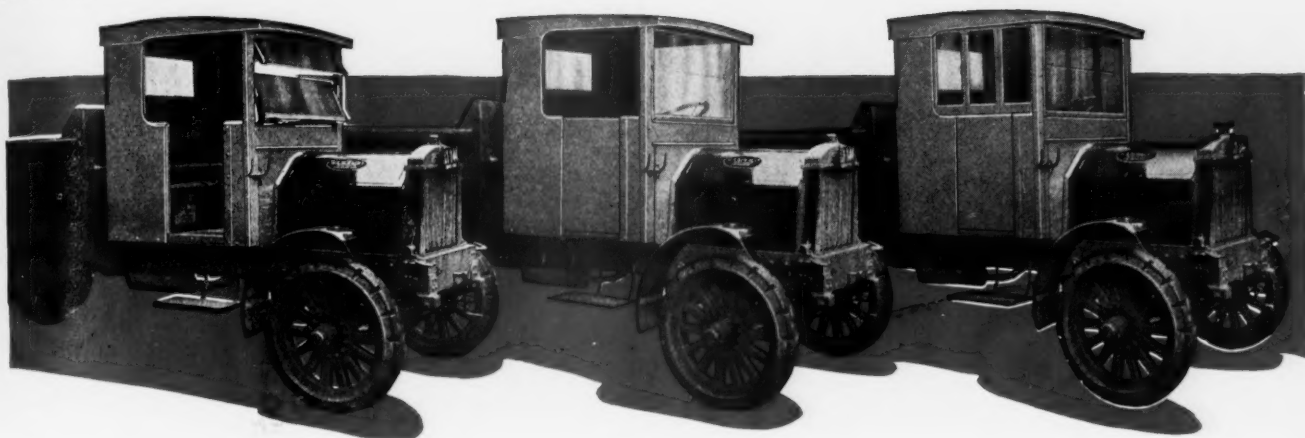
ATTERBURY MOTOR CAR CO.

Member of Motor Truck Industries, Inc.

ELMWOOD AVE. at HERTEL :: BUFFALO, N. Y.

Export Dept.: 615 Fisk Bldg., Broadway at 57th St., New York

ATTERBURY Speed 6



Wide Open, Partly Closed or Closed **It's always Neat and Trim!**

HIGHLAND Cab engineers working on a cab design of which hundreds of thousands were to be produced — did a thorough engineering job.

They built a cab that was always good looking. They provided doors that never cover up your advertising, that never obstruct the driver's getting in or out even when long material is loaded alongside the cab — and most important of all that never stick out at the side and invite traffic accidents.

They abolished corner posts and wide blind spots — and provided a new degree of clear vision and safety.

They gave the world a truly universal cab exactly adapted to bad weather or good, to

use north or south. Adjustments of doors and windows are made instantly and easily. There are no celluloid lights to break or discolor — and no upkeep cost.

Then these engineers developed production methods that make it possible for us to deliver this superior cab at no greater cost than a haphazard hinged door cab built by a local carpenter.

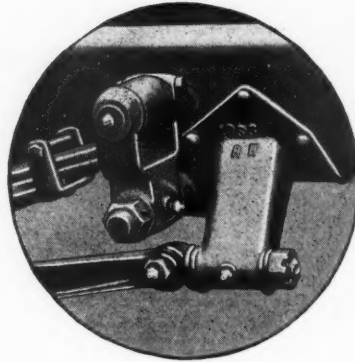
Every truck manufacturer or dealer can easily supply Highland Cabs. Don't let anyone sell you what they happen to have or what they can get easily. Insist on the real cab value — a Highland. On trucks already in operation our local distributors in nearly every town will mount Highland Cabs. Write for printed matter and prices.

THE HIGHLAND BODY MFG. COMPANY
403 Elmwood Place, Cincinnati, Ohio

HIGHLAND *Cabs*



.....as proof that *Lehigh* is engineered
for modern roads, consider



*the lowly spring
hanger and ra-
dius rod support*

Twice as strong ... half the weight

Spring hangers on the Lehigh are steel castings and combine the radius-rod support. They are less than half the weight of malleable iron hangers, used on the average truck, yet they are twice as strong.

Though spring hangers are a minor part, this construction detail is indicative of how thoroughly the truck has been designed throughout to meet modern conditions. This is one reason why the Lehigh weighs 25.6 lbs. per h. p. less than the average two-ton truck.

There is no extra bulky weight to carry around, nor to pay for.

The Lehigh price is \$1001 less than the average price of two-ton trucks.

Not only is the truck modern, but it is kept that way. There are no financial barriers to changes that improve the Lehigh. No costly jigs, no expensive machines to junk, or stand in the way of keeping the truck up-to-date and years ahead of the field in price.

There are other sales advantages no other truck can match, which we will gladly explain upon request. Investigate! THE LEHIGH COMPANY, ALLENTOWN, Pa.

2-Ton
4-Cylinder
Model



\$1795
f.o.b. Allentown

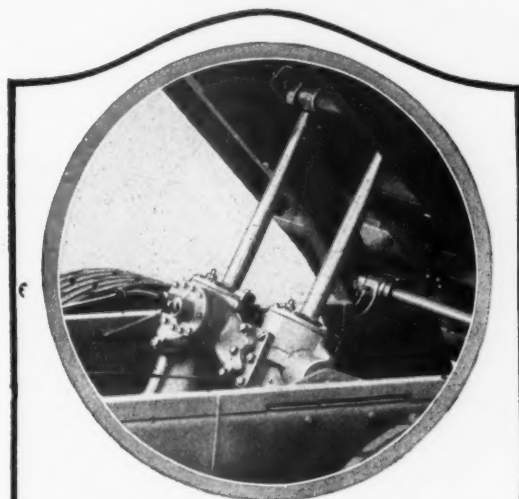
HEIL QUALITY BODIES AND HOISTS



The improved Heil Hoist is announced at a most appropriate time. It is just twenty-five years ago that The Heil Co. was founded.

During all that time the trade-mark of Heil Quality has increased in its influence until today it is the buying standard of the dumping equipment field.

The Heil Co. manufactures a complete line of steel Dump Bodies, Hydro Hoists, Mechanical Hoists, Hand Hoists, and Gravity Dumps and Compartment Truck Tanks for all motor trucks.



1. More Compact—Tank Cast in Cylinders.
2. Hoist Weight Reduced—Uses Less Oil.
3. Possibility of Air in Cylinders Eliminated.
4. Bigger Dump Angles—Greater Ground Clearances.



The Heil Hoist and Body are easiest to mount and operate. The Hoist controls in the cab are unusually sturdy. Handles cannot be twisted or bent. Horizontal rods prevent slipping of the levers.

Heil makes a gravity street sprinkler tank for your municipality, also Garbage and Rubbish and Asphalt dump units. Bulletin No. 146 describes equipment for the municipal field.

Newest HEIL Features

THIS latest Heil Hoist is still the same old reliable twin-cylinder unit—but it has been improved to give even more and better service. The oil reservoir is now located in the top of the cylinders thus eliminating the tank. Positive equalization of oil is secured through an equalizer tube. This construction prevents air from coming in,

hence no foaming of oil. A longer piston stroke increases the dumping angle and ground clearance. The weight and oil capacity of the new models have been considerably reduced. Write for the special folder on the Model 26 Heil Hoist—also Catalog No. 140 on Dump Bodies.

THE HEIL CO.

1143 Montana Avenue

Milwaukee, Wis.

Factory Branches and Warehouses in Philadelphia and Chicago. One of our twenty-five authorized distributors is near you.

Truck Dealers: Send in the coupon below. Indicate the trucks you are interested in.



Tell Me About Model 26 Hoist!

Please send specifications on the improved Heil Hoist. Also catalog on ☐ Dump Bodies. ☐ Compartment Tanks.

Name

Address

City..... State.....

Dealer for Trucks

Note: Put coupon in envelope and send to the Heil Co., 1143 Montana Ave., Milwaukee, Wisconsin.



What the American Sugar Refining Company says about Prest-O-Lite

RECENTLY the American Sugar Refining Company wrote us as follows:

"We are pleased to advise you that Prest-O-Lite Gas equipment has always served us well. In fact, we have found it to be the most economical for heavy-truck service.

"Domino Sugars and Syrup are sent all over the world, tremendous quantities are shipped every day and our many trucks must be equipped to work economically and efficiently at all times."

Prest-O-Lite is economical to install and to operate. It gives trucks a penetrating mellow light that makes night driving safe and fast. It is proof against rough roads and bad weather. It is *legal everywhere.*

Prest-O-Lite equipment operates on Prest-O-Lite Gas in convenient tanks. When the tanks are empty they can be exchanged for full ones at any one of the thousands of Prest-O-Lite Service Stations, located all over the country, by paying a small amount for the gas only.

As manufacturers of storage batteries for lighting trucks, as well as Prest-O-Lite Gas, we are in a position to tell you the lighting equipment that has proved most satisfactory in various types of service.

THE PREST-O-LITE CO., INC.

INDIANAPOLIS, IND.

New York

San Francisco

In Canada: Prest-O-Lite Company of Canada, Ltd.
Toronto, Ontario

Prest-O-Lite Gas

Prest-O-Lite Gas

Prest-O-Lite makes every hour a profitable hour for your trucks

OPERATORS of both large and small fleets of trucks have found that Prest-O-Lite lighting equipment enables them to operate their trucks profitably after dark.

Prest-O-Lite equipment not only enables them to travel *safely* at night, but to proceed at reasonable speed.

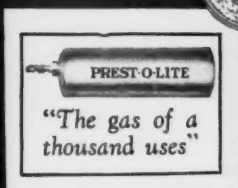
The light is penetrating, giving clear

vision of the road ahead. It is dependable, regardless of roads and weather. It is economical, both to install and to operate. *And it is legal everywhere.*

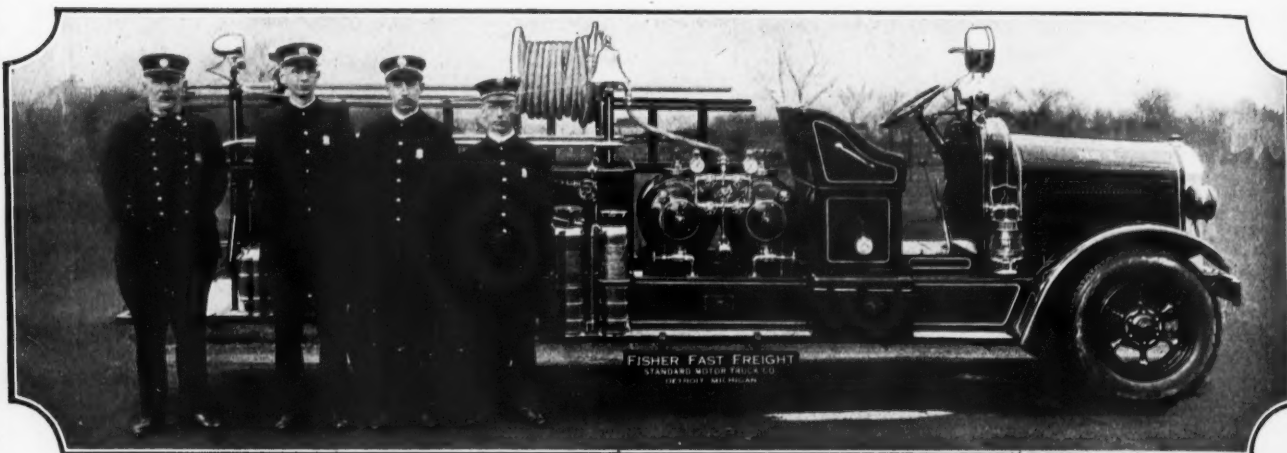
Follow the example of thousands of fleet operators and equip your trucks with Prest-O-Lite. You'll have no more idle hours to eat into your truck profits, or add to your ton-mile costs.

To truck dealers

Your customers look to you for equipment advice. Guarantee them absolute lighting satisfaction by selling them Prest-O-Lite Gas. Its faithful performance makes friends for you. By keeping Prest-O-Lite Gas in stock, you build up a profitable business in exchanges. *Write for our dealer proposition.*



Fisher Fast Freight Vocational Truck Performs in All Kinds of Service



THIS FISHER FIRE TRUCK WINS UNSTINTED PRAISE FROM CHIEF BRAEN

HAWTHORNE FIRE DEPARTMENT

Board of Commissioners
Peter Braen, Borough Chief

Hawthorne, N. J., Feb. 20, 1926

Standard Motor Truck Company
Detroit, Michigan.

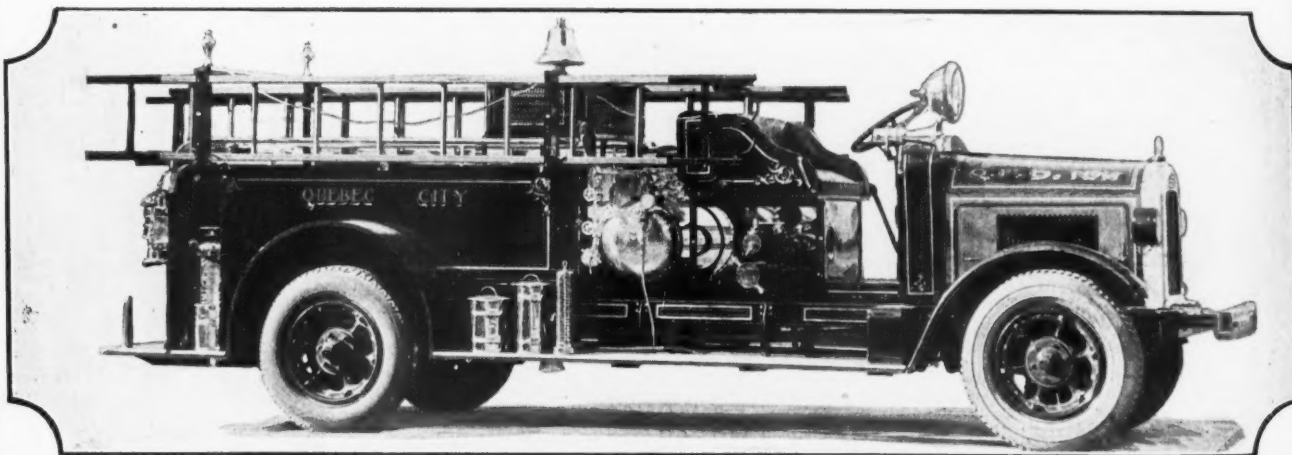
Gentlemen:

Your letter dated the 15th, in which you inquire as to the efficiency and service of the FISHER FAST FREIGHT as a fire apparatus, received and contents carefully noted. In answer will say that we consider it SECOND TO NONE.

We have had it only a short time, but in that short time it has proved its efficiency and stability and answered every requirement. We have answered calls where we had to break through 12 inches of snow and drifts with 18 men, 1000 ft. of 2½ in. hose, two 35-gal. chemical tanks, boots, coats, ladders and other equipment, and the performance of the truck was marvelous. In all, we consider the FISHER the "last word" for fire apparatus.

I am enclosing a photograph of this apparatus and you may use this letter as a testimonial if you so desire. Hoping this will fulfill your request, I am,

Very truly yours,
(Signed) PETER BRAEN, Chief.



THIS FISHER FIRE TRUCK SERVES CITY OF QUEBEC, ONTARIO, CANADA

**The Fisher Fast Freight and Standard Heavy Duty Models
Make a Complete Line on Which a Dealer Can Build a Per-
manent, Profitable Business. Write for Franchise Details**

STANDARD MOTOR TRUCK CO.

ALBERT FISHER, President

DETROIT, MICH., U. S. A.

Prevent this Huge, Needless money Waste

The average bus or truck fleet traffic manager would be literally horrified if he could realize the full cost of the use of dirty, contaminated oil in his motors.

Frequent crankcase draining helps—yes; but it falls far short of completely remedying the trouble.

The only remedy is to assure clean oil *all the time*—and to do that, your motors must have PUROLATOR.

PUROLATOR provides clean lubrication for the engine, by filtering the oil continuously as the engine runs.

Not by screening or any similar half-way measure, but by a process of microscopic filtration which will always be exclusive to PUROLATOR alone.

No dirt, fine metal particles, hard carbon formed by combustion, nor adulteration can get through PUROLATOR to work incredible damage to engine bearings, pistons, cylinder walls and other vital parts.

With PUROLATOR, many manufacturers recommend that the crankcase be drained only every 2000 to 3000 miles instead of the 500-mile intervals which are the only safe periods without PUROLATOR.

When you buy new buses or trucks be sure they are equipped with PUROLATOR, either by its makers or by your local PUROLATOR station; and take steps *now* to have every vehicle in your service equipped with PUROLATOR.

You can have PUROLATOR protection and economy at a very moderate cost, and save the "time out" and the expense in repairs and overhauling, which dirty oil can and does inflict. See your local PUROLATOR headquarters at once.

MOTOR IMPROVEMENTS, INC.

365 Frelinghuysen Ave. • • Newark, New Jersey



The PUROLATOR Oil Filter is now standard equipment on the following cars, buses, taxicabs and farm machinery:

Buick	Nash
Cadillac	Oakland
Chrysler	O'Connell Truck
Day-Elder	Peerless
Diana	Six-wheel Bus
Flint	Studebaker
Luxor Cab	Wilcox Trux
Massey-Harris	Yellow Coach
Combine	Twenty-two different models in all.
Master Truck	

PUROLATOR

THE OIL FILTER

[[Buses and Trucks—\$50. Passenger Cars—Priced at \$15, \$20, \$25—according to size of engine. In far West, prices slightly higher. Motor Boats—PUROLATOR is available for all types of marine engines having force feed lubrication. Priced as above.]]



This sign stands for a complete line of pneumatic tires.

This line includes a tire that has won its place in the truck field, a tire that means good mileage, good traction, good looks. Also one that combines toughness with resiliency to an unusual degree.

Federal Truck Tires are serviced to dealers and distributors through Federal Branch Houses located in the larger cities throughout the country.

The Federal Agency Sign is always displayed by a dealer well established in his community

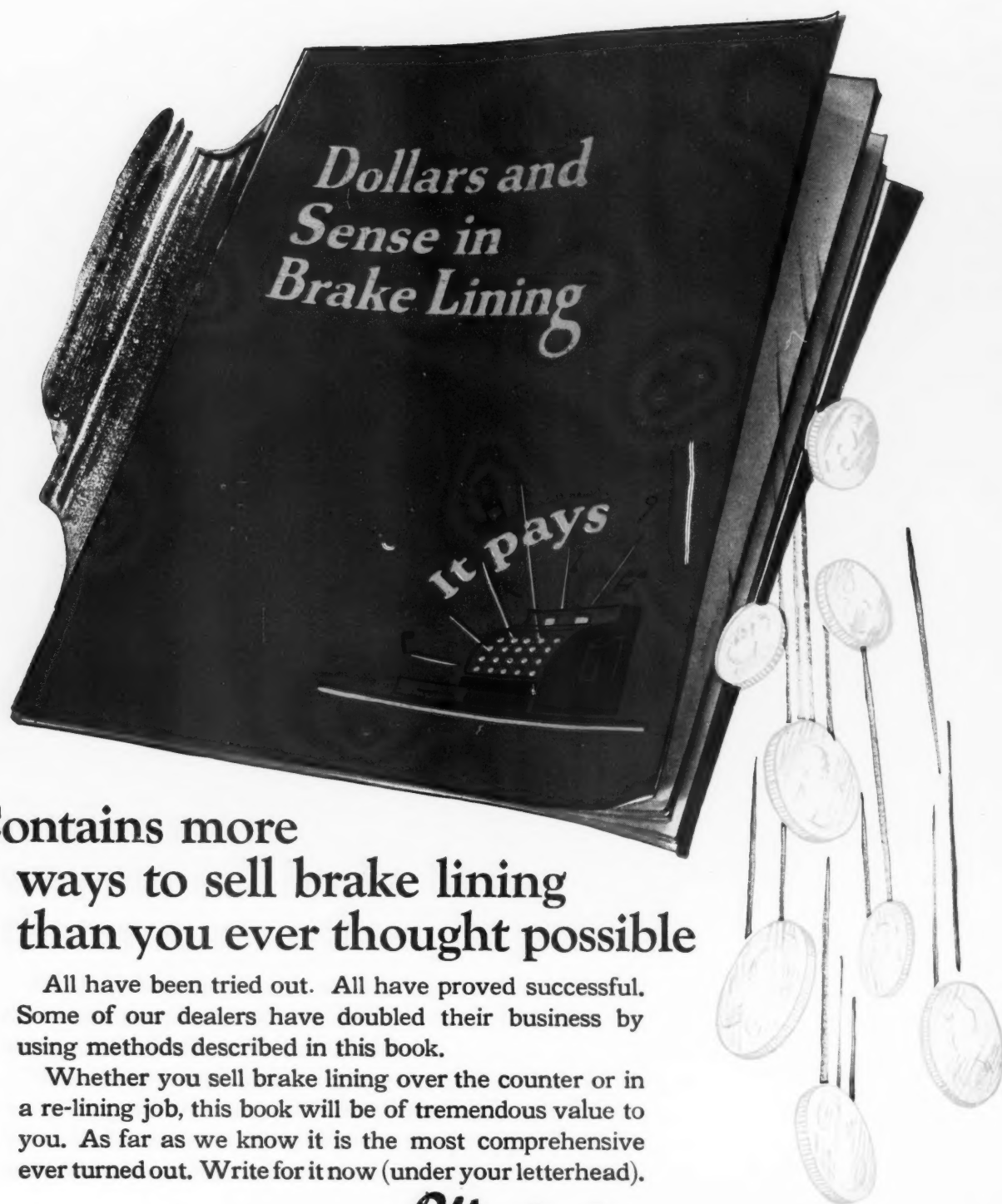


Dollars and Sense in Brake Lining



(over)

A profit getter —



**Contains more
ways to sell brake lining
than you ever thought possible**

All have been tried out. All have proved successful. Some of our dealers have doubled their business by using methods described in this book.

Whether you sell brake lining over the counter or in a re-lining job, this book will be of tremendous value to you. As far as we know it is the most comprehensive ever turned out. Write for it now (under your letterhead).

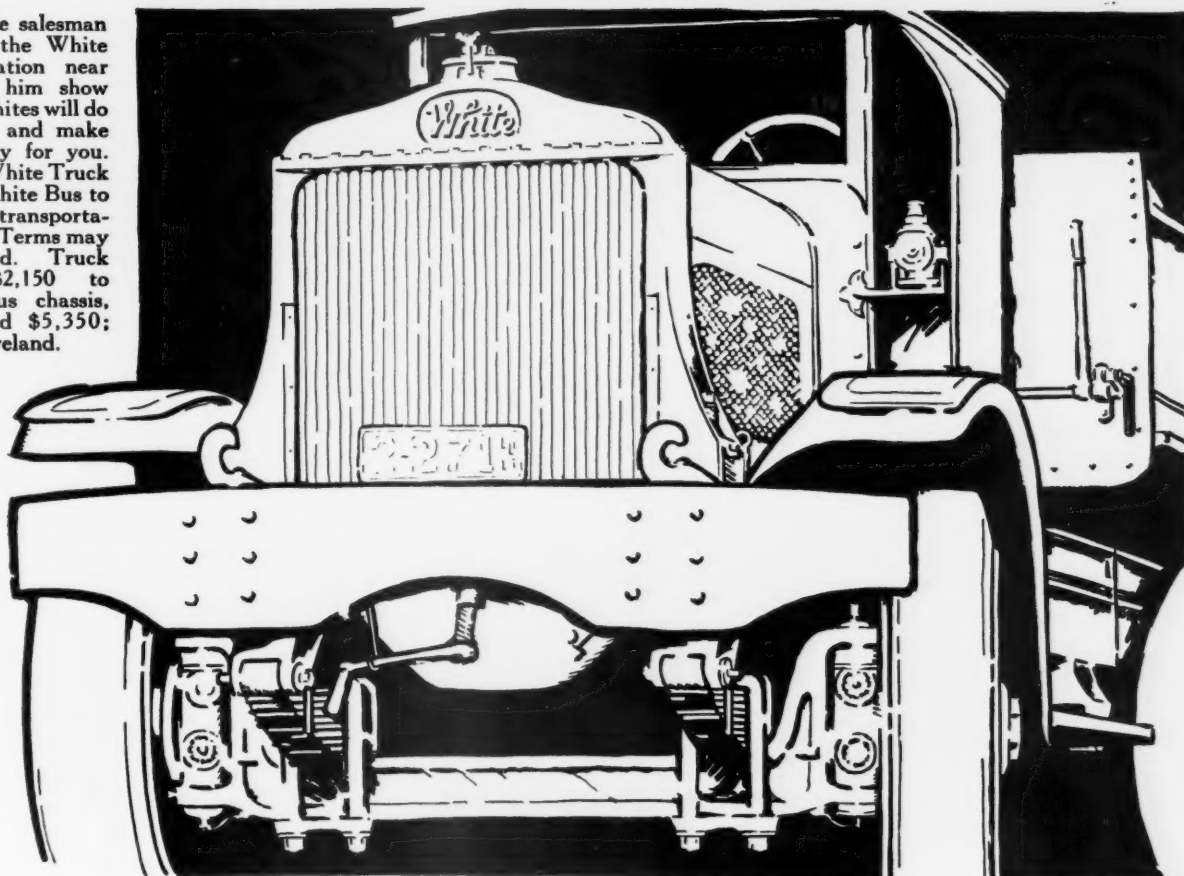
Write to
JOHNS-MANVILLE

JOHNS-MANVILLE INC., 231 MADISON AVENUE AT 41st STREET, NEW YORK CITY
Branches in 63 Large Cities For Canada: CANADIAN JOHNS-MANVILLE CO., Ltd., Toronto

**ASBESTOS BRAKE LINING
CLUTCH FACINGS, PACKINGS, ETC.**

No job too big

Let a White salesman show you the White Service Station near you. Let him show you how Whites will do more work and make more money for you. There is a White Truck model or White Bus to meet every transportation need. Terms may be arranged. Truck chassis, \$2,150 to \$5,100; Bus chassis, \$4,250 and \$5,350; f. o. b. Cleveland.



Power for any purpose
Brute strength where snow
or sand or mud clutch at
the wheels Speed when
you want speed That
old extra punch when a hole
or a hill seems to have you
licked with your load.



That's a White It's any
White—on any job
All Whites are built that
way. 24 hours a day is O.K.
with Whites. They've got
the stuff no other truck or
bus has. / / / For Whites
there's no job too big.

THE WHITE COMPANY / / CLEVELAND

WHITE TRUCKS

MADE RIGHT - SOLD RIGHT - KEPT RIGHT

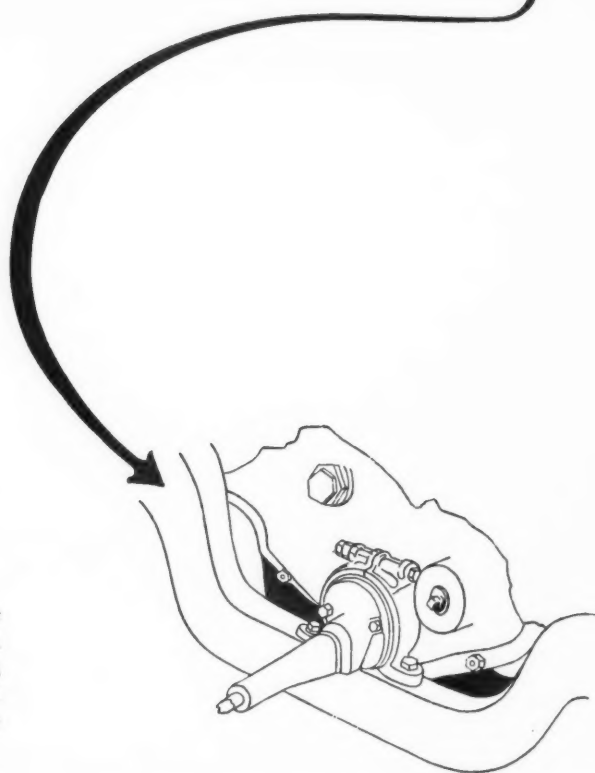
Service

Cushioned Engine Mounting

Service Features Make Resales

IN SERVICE Trucks particular care is given to the cushioning of all vital parts. This feature of SERVICE design is largely responsible for the wonderful record of SERVICE Trucks for long life and endurance.

The flexible, three point mounting of SERVICE engines and transmissions is another extra value feature that makes resales for SERVICE distributors. Your territory may be open, write today for details of the SERVICE franchise.



The three point suspension of the SERVICE engine is increased in flexibility by this trunnion bracket mounting at the front. A stiff spring automatically takes up wear and protects the engine from the injurious results of vibration. This type of mounting also protects the transmission in heavy duty SERVICE models.

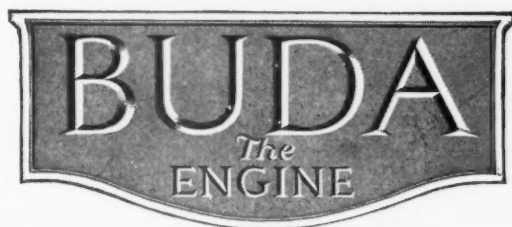
SERVICE MOTORS, INC., WABASH, INDIANA



Coming

*Another Buda high duty
Six for the smaller buses -
street car or interurban type,
taxicabs and trucks. Write
for detail information.*

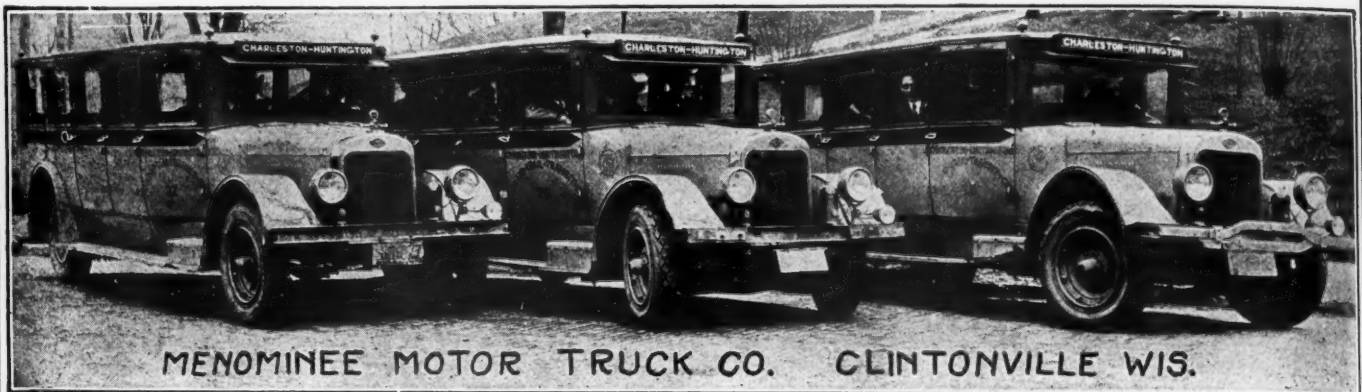
THE BUDA COMPANY, HARVEY CHICAGO
SUBURB ILL.
ESTABLISHED 1881



Buy only genuine Buda Parts for your Buda engine

Indestructible Steel Wheels

Eight times around the world!



*Single, Double Disc
and Dual Pneumatic
Single and Dual S.A.E.
Type Wheels*

Still Going!

*Quality Steel
Wheels for
17 Years*

This should mean something to you. It is a tribute to the sturdy construction of INDESTRUCTIBLE SINGLE and DOUBLE DISC, DEMOUNTABLE RIMMED STEEL WHEELS. You will find in a few moments glancing over comparative costs a large saving in INDESTRUCTIBLE STEEL WHEELS.

A wheel, light, resilient, noiseless, with demountable rims and very important PERMANENT ALIGNMENT and CONCENTRICITY FEATURES.

INDESTRUCTIBLE WHEELS interchange with all standard wheel equipment, including rims and rim parts, hubs, hub bolts and drums. This feature alone means much to you.

We have a corps of engineers and salesmen, who will make INDESTRUCTIBLE wheel recommendations for you.

Manufactured by
INDESTRUCTIBLE WHEEL COMPANY
LEBANON, INDIANA

"WHEELS THAT STAND THE TEST"

MENOMINEE MOTOR TRUCK CO.

OF WISCONSIN

MANUFACTURERS OF



Clintonville, Wisconsin, U. S. A.

Jan. 7, 1926.

Indestructible Wheel Co.,
Lebanon, Ind.

Gentlemen:

Replying to your letter of Dec. 30 we are inclosing a photograph of three jobs owned by the Midland Trail Transit Co., Charleston, W. Va. with your wheels on which have gone 200,000 miles and are still going. This is not a photograph of the jobs that operated 250,000 miles as we do not happen to have a copy of them.

They have two more of these jobs which have also gone 200,000 miles.

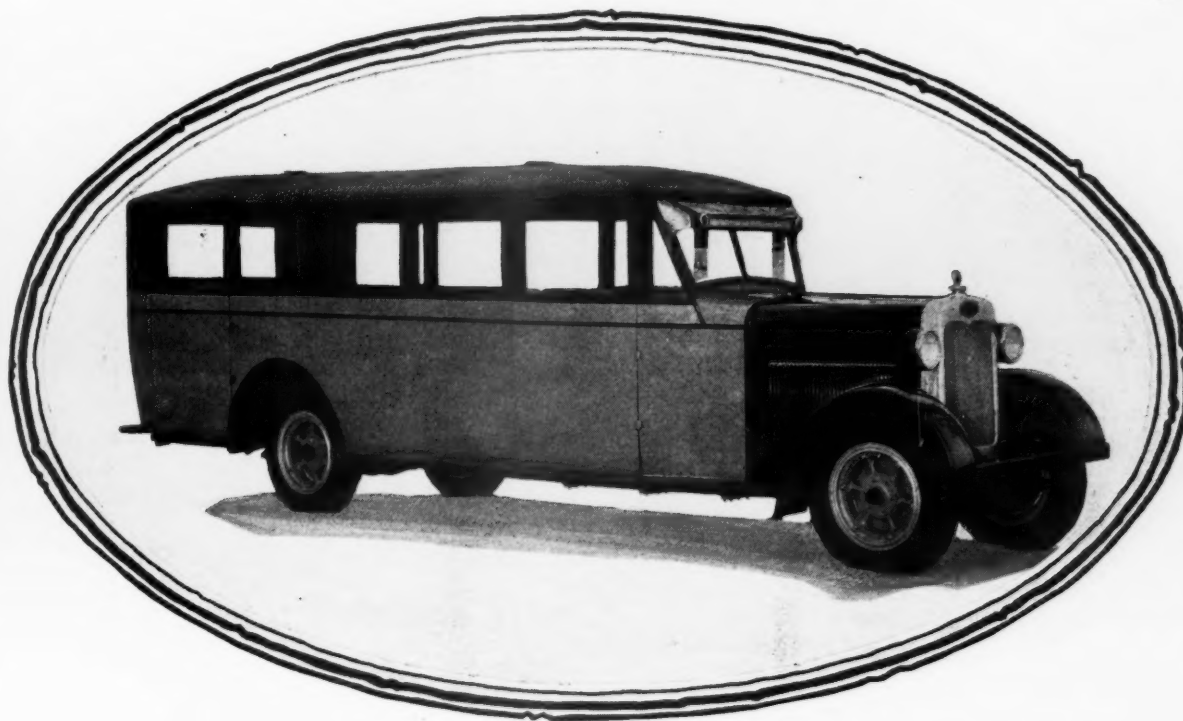
Please refer to our order A-2392 and inform us when we can expect these wheels for dual pneumatics.

Very truly yours,
MENOMINEE MOTOR TRUCK CO. OF WISC.

J. H. Kalmes
ASSISTANT SECRETARY.

JWKalmes
HME
Incl.

On this new, low-priced bus, a bridge-type frame.....



.... and four-wheel brake safety.

.... easy entrance. The frame is hung 20 inches from the ground.

.... for the first time on a low priced bus the desired bridge-type frame.

This gives the same low floor space the full length of the bus.

.... Speedy 50 miles per hour.

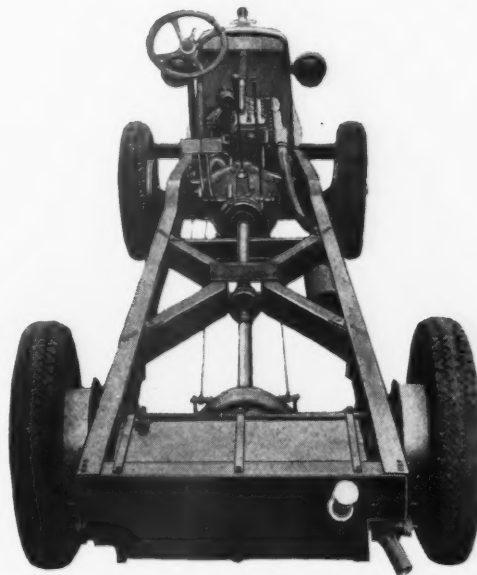
Vibrationless

And practically no vibration. Just easy, relaxed riding comfort for all.

No wonder! The same B. A. Grammm methods of shock insulation as used on the Grammm-Kincaid motor trucks are incorporated in this fine bus.

Shock cushioning rubber mountings for the motor. Triple compensating semi-elliptic springs with cupped centers. Such type of springs as used on the Fifth Ave. buses.

Rear springs are 60 in. x 3 in., and the front are 46 in. x 3 in.



Heavier construction

Heavier rear axle and springs are provided for "pay as enter" job. Safely takes care of overloads. Fits the chassis for van or heavy commercial work.

Two capacity buses. One a twenty passenger bus. The other twenty-one. Two styles of body. A roomy, comfortable sedan type. And an inter-city type bus.

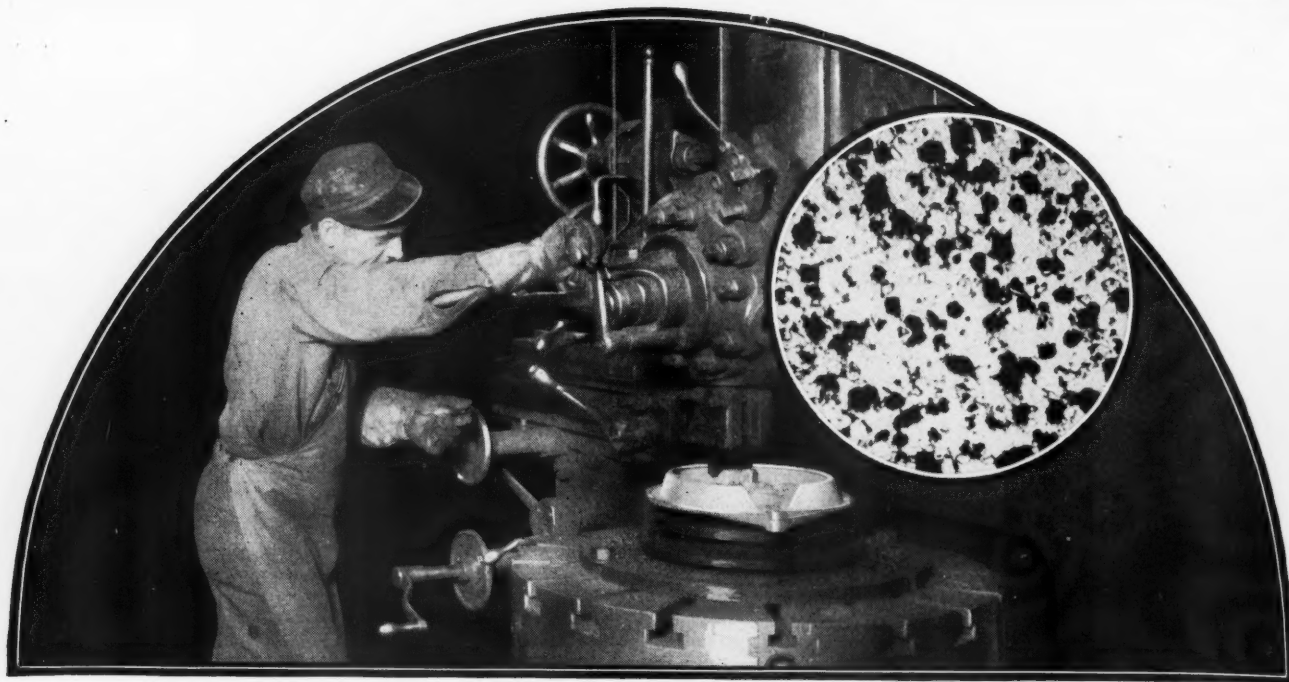
Write for free booklet

Write for details, get our free folder completely describing the Grammm-Kincaid motor bus. Then compare our capacities and prices with any other unit in America. Ask for full details of our sales proposition. GRAMM & KINCAID MOTORS, Inc., LIMA, OHIO.

Also an Ideal Commercial Chassis

GRAMM & KINCAID MOTOR BUSES and TRUCKS

MEMBER OF MOTOR TRUCK INDUSTRIES INC. OF AMERICA



Machining, threading, planing, broaching, drilling, punching, and riveting are easily performed on Certified Malleables. Minute particles of temper carbon or graphite released during the annealing process forms a natural lubricant for the cutting tool.

Certificate Holders During Quarter Ending March 31, 1926

Albany Malleable Iron Co.	Voorheesville, N. Y.
Albion Malleable Iron Co.	Albion, Mich.
American Chain Co.	Bridgeport, Conn.
American Malleable Castings Co.	Marion, O.
American Malleables Co.	Lancaster, N. Y., and Owasco, Mich.
Badger Malleable & Mfg. Co.	South Milwaukee, Wis.
Baltimore Malleable Iron & Steel Casting Co.	Baltimore, Md.
Belle City Malleable Iron Co.	Racine, Wis.
Chain Belt Co.	Milwaukee, Wis.
Chicago Malleable Castings Co.	West Pullman, Chicago, Ill.
Columbia Malleable Castings Co.	Columbus, Pa.
Columbus Malleable Iron Co., The	Columbus, O.
Danville Malleable Iron Co.	Danville, Ill.
Dayton Malleable Iron Co., The	Dayton, O., Ironton, O.
Decatur Malleable Iron Co.	Decatur, Ill.
Devin Mfg. Co., Thomas	Philadelphia, Pa.
Eastern Malleable Iron Co., The	Naugatuck Malleable Iron Works, Naugatuck, Conn.; Bridgeport Malleable Iron Works, Bridgeport, Conn.; Troy Malleable Iron Works, Troy, N. Y.; Wilmington Malleable Iron Works, Wilmington, Del.; Vulcan Iron Works, New Britain, Conn.
Erie Malleable Iron Co.	Erie, Pa.
Federal Malleable Co.	West Allis, Wis.
Fort Pitt Malleable Iron Co.	Pittsburgh, Pa.
Fraser & Jones Co.	Syracuse, N. Y.
General Electric Co.	Erie, Pa.
Glancy Malleable Corporation	Waukegan, Wis.
Illinois Malleable Iron Co.	Chicago, Ill.
Iowa Malleable Iron Co.	Fairfield, Ia.
Kalamazoo Malleable Iron Co.	Kalamazoo, Mich.
Laconia Car Co.	Laconia, N. H.
Lakeside Malleable Castings Co.	Racine, Wis.
Link Belt Co.	Indianapolis, Ind.
Marion Malleable Iron Works	Marion, Ind.
Moline Malleable Iron Co.	St. Charles, Ill.
National Malleable & Steel Castings Co.	Cleveland, O., Chicago, Ill., Indianapolis, Ind., Toledo, O., E. St. Louis, Ill.
Northern Malleable Iron Co.	St. Paul, Minn.
Northwestern Malleable Iron Co.	Milwaukee, Wis.
Peoria Malleable Castings Co.	Peoria, Ill.
Pittsburgh Malleable Iron Co.	Pittsburgh, Pa.
Rhode Island Malleable Iron Works	Hillsgrove, R. I.
Rochford Malleable Iron Works	Rochford, Ill.
Rose-Mechan Foundries, The	Chattanooga, Tenn.
St. Louis Malleable Casting Co.	St. Louis, Mo.
Saginaw Products Co.	Saginaw, Mich.
Standard Malleable Castings Co.	Terre Haute, Ind.
Stowell Co., The	South Milwaukee, Wis.
Superior Steel Castings Co.	Benton Harbor, Mich.
Symington Co., The	Rochester, N. Y.
Temple Malleable Iron & Steel Co.	Temple, Pa.
Terre Haute Malleable & Mfg. Co.	Terre Haute, Ind.
Trenton Malleable Iron Co., The	Trenton, N. J.
Union Malleable Iron Co., The	E. Moline, Ill.
Vernilion Malleable Iron Co.	Hoopeston, Ill.
Wanner Malleable Castings Co.	Hammond, Ind., and Beloit, Wis.
Warren Tool & Forge Co.	Warren, O.
Webster Mfg. Co., The	Chicago, Ill.
Wisconsin Malleable Iron Co.	Milwaukee, Wis.
York Mfg. Co.	York, Pa.
Zanesville Malleable Co.	Zanesville, O.

Easy and Economical Machining Characteristics of Certified Malleable Iron

One-eighth inch cuts at 150 feet and light finishing cuts at 250 feet per minute are common with Certified Malleable Castings; in fact no other ferrous material possessing equal shock resisting qualities can be machined as easily, quickly and economically as this material.

And what is more important, Certified Malleables are particularly free from blow-holes so that rejects, after much expensive machining, are reduced to a minimum. The uniform, fine grained structure of Certified Malleables insures smooth, clean cut surfaces after machining and an ideal surface for the application of paint.

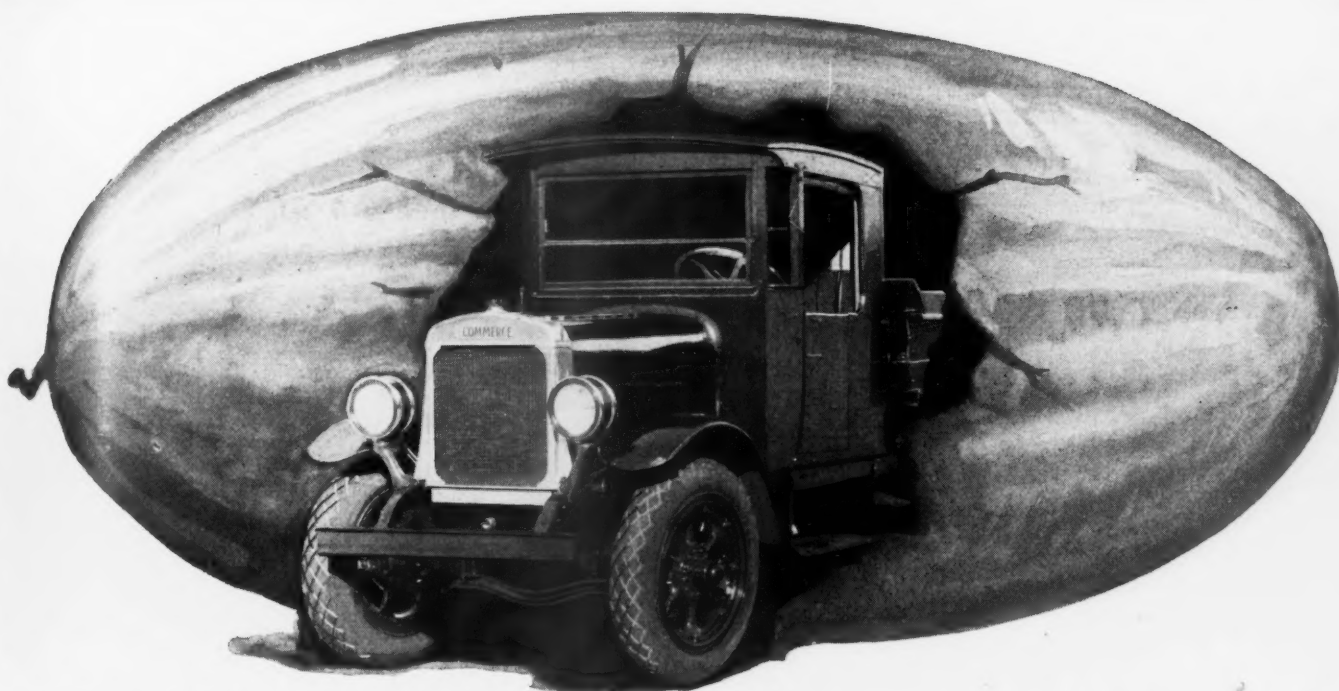
Any metal possessing these superior machining qualities: with an average ultimate strength well over 50,000 pounds; a yield point of approximately 33,000 pounds per square inch; an elongation averaging more than 10%; together with great shock resistance and high rust resisting qualities certainly possesses all the elements necessary for economical production and severe operation.

Send for 32 page educational booklet — "Certified Malleable in Transportation and Industry."

AMERICAN MALLEABLE CASTINGS ASSOCIATION
UNION TRUST BUILDING CLEVELAND, OHIO



CERTIFIED MALLEABLE CASTINGS



Will you get your slice?

WESTERN UNION TELEGRAM		Form 1108-A NO. GASH OR CASH CHECK TIME FILED
CLASS OF SERVICE DESIRED TELEGRAM DAY LETTER NIGHT MESSAGE NIGHT LETTER	NEWCOMB CARLTON, PRESIDENT GEORGE W. E. ATKINS, VICE PRESIDENT Read the following message, subject to the terms on both hereof, which are hereby agreed to	
MONTREAL, QUEBEC, FEBRUARY 12, 1926 COMMERCE RELAY TRUCK CLIMBED PEEB STREET HILL TWENTY PERCENT GRADE WITH FOUR YARDS STONE PULLING ANOTHER TRUCK LOADED WITH 637 GALLONS FUEL OIL DEAD HAUL STOP ALSO CLIMBED CLARK AVENUE AND MOUNTAIN AVE TWENTY SEVEN PERCENT GRADES WITH SAME LOAD STONES NOT PULLING TRUCK STOP ROADS WERE COATED WITH ICE WITH LOOSE SNOW ON TOP STOP SPECTA- TOBS AMAZED AT PERFORMANCE STOP MAILING ORDERS FOR NINE JOBS SHIP QUICK AS POSSIBLE GARAGE LEONARD		

THE Commerce Relay Drive Truck will out-perform any truck made. Commerce dealers are selling it—fast.

Read this telegram from the Commerce dealer in Montreal—learn how he and other dealers are getting their slice of Commerce Relay sales.

You, too, can make more money by selling motor trucks that are different, exclusive, and better.

Sell trucks—not prices. Make profits—not just sales.

It may be that your territory is still available. Write or wire for particulars of the Commerce franchise and descriptions of the complete Commerce line.

COMMERCE MOTOR TRUCK COMPANY
YPSILANTI, MICHIGAN

Export Dept.: 132 Nassau St., New York City
Cable: Comerstrux

Commerce

THE COMMERCE RELAY

The Commerce "Relay" is a 3½ ton truck. It incorporates a new type of rear axle drive which multiplies the actual motor power available for work at the wheels by 114% (more than double). 30 miles per hour loaded is an easy gait. The riding qualities of the "Relay" are almost unbelievable until experienced—it rides like a

balloon-tired passenger car. It is powered by a six cylinder 70 horse power motor. Clutch is multiple disc. Transmission—special four speed horizontal type hung amidships. Tires—36 x 6 pneumatic, front, 40 x 12 solid, rear. It will absolutely out-perform any truck made. Write for complete specifications.

**INTERNATIONAL
HARVESTER
TRUCKS
COMPANY**



INTERNATIONAL SPEEDS THE PERISHABLE LOAD

FRUIT from California; vegetables from Florida; eggs and poultry from the central states; perishable foods from a thousand places are constantly speeding to distant markets in quantities that fairly stagger the imagination.

Transportation for perishables accentuates the necessity for speed and capacity, but especially for dependability.

That the International Harvester Company of America, because of its long

and intimate contact with the agricultural production of the entire world, has felt the paramount importance of these fundamentals in speed trucks, is evident alike from International design and construction features and from International Speed Truck Service records.

It is significant that this company has for five years used Lycoming Motors in its speed trucks and model S. L. bus bodies.

LYCOMING MANUFACTURING COMPANY

Makers of Fine Fours, Sixes and Eights-in-Line
WILLIAMSPORT :: PENNSYLVANIA

LYCOMING

Motors

Years Ahead in Automobile Motor Efficiency

Ask Mr. Conklin



MACK-INTERNATIONAL MOTOR TRUCK CORPORATION
MACK (DISTRIBUTORS) TRUCKS
701 TO 723 NINTH AVE. NORTH
PHONE CAPITOL 4875
SEATTLE, WASH.

Thermoid Rubber Co.,
Trenton, N. J.

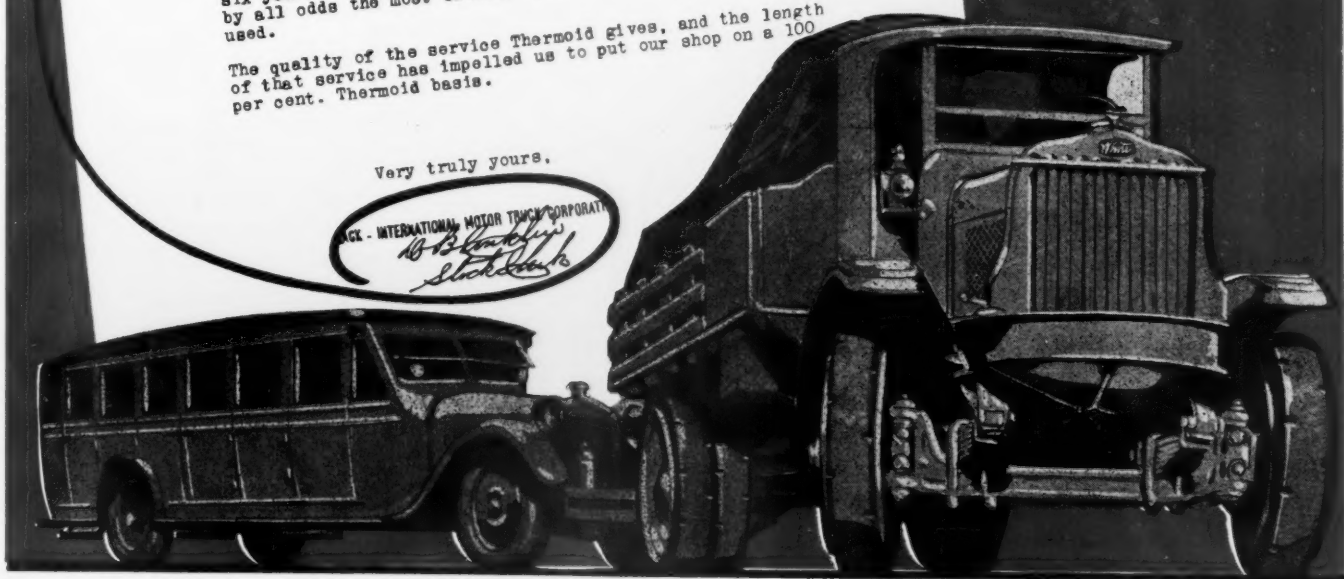
Dear Sirs:

After trying out many well known makes of brake lining and after having used Thermoid consistently for the past six years, we can conscientiously say that Thermoid is by all odds the most satisfactory lining we have ever used.

The quality of the service Thermoid gives, and the length of that service has impelled us to put our shop on a 100 per cent. Thermoid basis.

Very truly yours,

MACK-INTERNATIONAL MOTOR TRUCK CORPORATION
B. B. Conklin
Stockholder



BRAKE lining is still sold by the foot at standardized prices. But the service and the wear you get out of each foot of lining depends upon the quality *and* the quantity of materials woven into it.

In Thermoid you get the biggest quantity of the longest, strongest fibred asbestos that Canada knows how to produce. In Thermoid you get better service and more of it. In every way and on every count—it pays to stick to Thermoid.

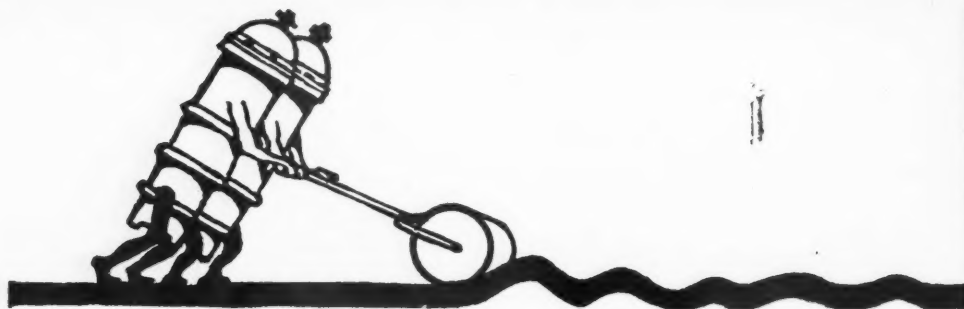
THERMOID RUBBER COMPANY, Factories and Main Offices, TRENTON, N. J.

*Makers of Thermoid and Rexoid Transmission Lining, Thermoid-Hardy Universal Joints,
Thermoid Radiator Hose and Mechanical Rubber Goods*

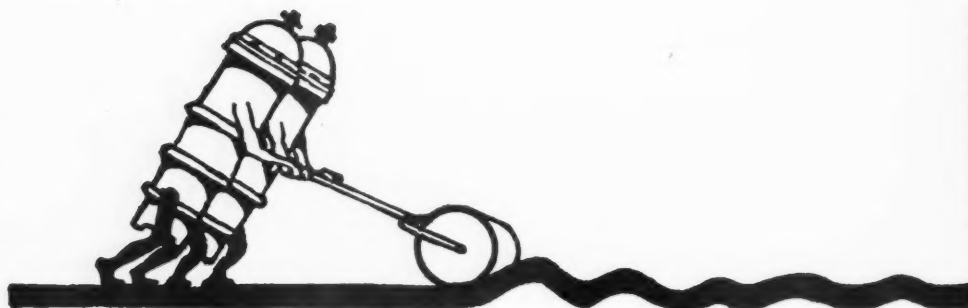
**The Asbestos
Brake
Lining**

Thermoid
Hydraulic Compressed
Brake Lining

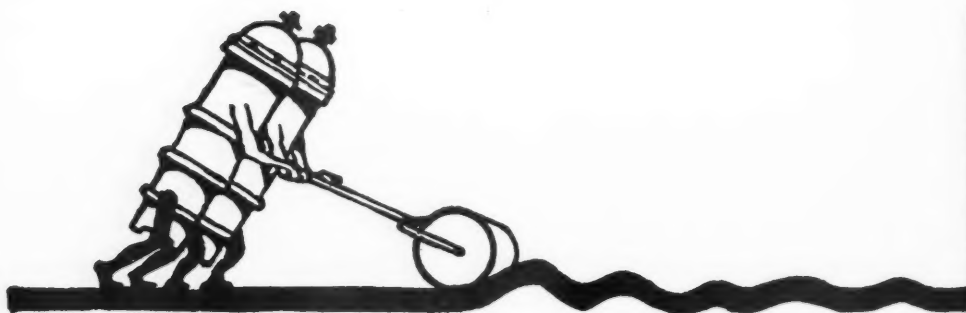
**For short
stops and
long service"**



**The
Gruss
Twins**



**Cut truck
and Bus
Maintenance
Costs**



**166%
Sales Increase
Last Year
Proves It**

*Distributors! A few desirable locations are open for the right men.
Write or wire today.*

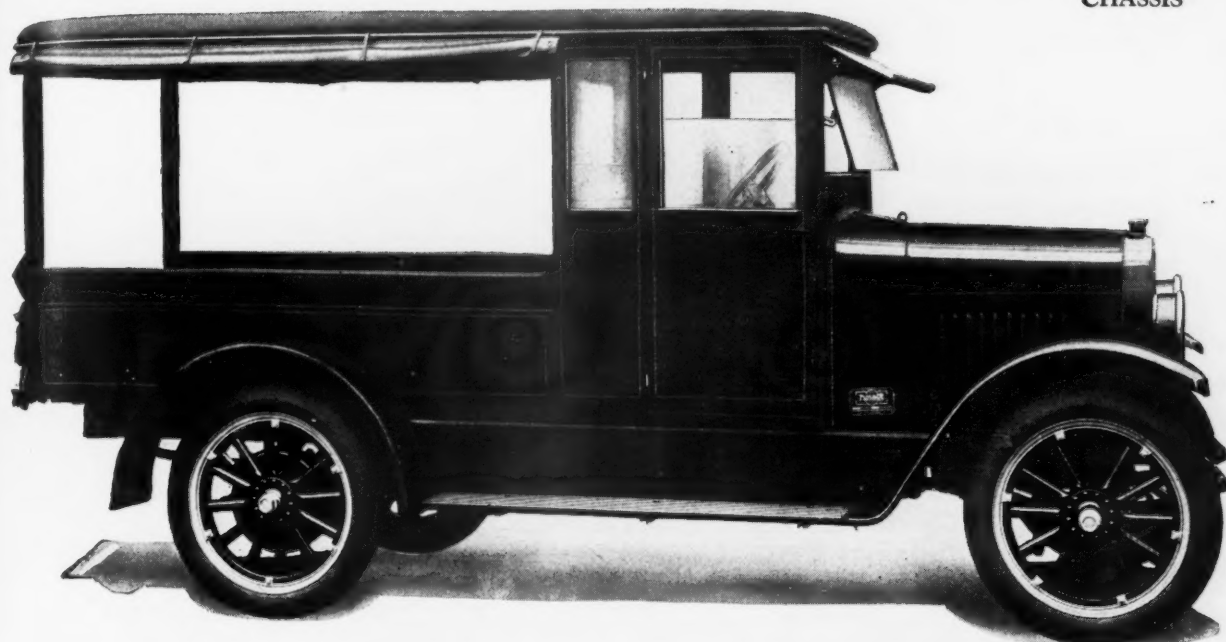
GRUSS AIR SPRINGS
*for Trucks, Buses
Passenger Cars ~*



Manufactured by THE CLEVELAND PNEUMATIC TOOL CO., CLEVELAND, O.

"Buddy" Stewart \$895

CHASSIS



Dealers Are Flocking In To Take On the Stewart Line



Stewart 1 Ton Speed Truck



Stewart 1 1/2-2 Ton Speed Truck

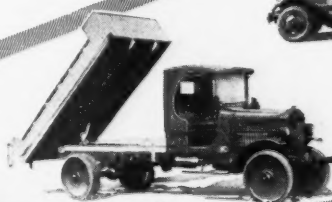
A Dealership Opportunity

Ask about the Stewart franchise today.
This is a money making opportunity.

Sixty-three new dealers have signed the Stewart franchise in the last 60 days. Registrations show trucks are selling faster than ever before—better than 1925 which showed a 30% gain over the preceding year. This is bound to be the greatest net profit year for truck makers and dealers.

Always good, the Stewart line has never set so high a standard—models covering all the fast selling sizes, a world-wide reputation for reliability and economy. The quality is proven by the many 4, 6, 8, 10 and even 12 year old Stewarts still giving service. Point for point they are designed to outlive and outwork ordinary trucks, to give the most in service for the least money.

"Buddy" Stewart is a remarkable truck at a remarkable price, but it is only one of the Stewart line—all good trucks.

Stewart Six Cylinder
25 Passenger Bus

Stewart 3 1/2-4 Ton Truck



Stewart 2 1/2 Ton Truck



Stewart 2 Ton Truck

Hundreds of
Stewart fleets
have grown
from a single
Truck

Stewart

MOTOR TRUCKS

STEWART MOTOR CORPORATION, BUFFALO, N. Y.
EXPORT BRANCH: 90 West Street, (Dept. 3) New York City. All Codes Used

STRENGTH ~ LIGHT WEIGHT ~ DURABILITY



Pierce-Arrow uses DAYTON'S

Dayton Steel Wheel popularity continues to grow and grow. More Dayton wheels were used in 1924 than in 1923. And 1925 broke all previous records by more than 46 per cent.

Why? Because the Dayton Steel Wheel is the *common-sense—natural—final* wheel for the motor truck. It has *proved* its worth. It is here to *stay*.

That's why Pierce-Arrow and nearly all the leading truck manufacturers use Dayton Steel Wheels on all or part of their production. Specify them on your next order.

THE DAYTON STEEL FOUNDRY COMPANY, Dayton, Ohio

Dayton

Steel Truck Wheels

TIRE ECONOMY ~ ACCESSIBILITY ~ APPEARANCE

SPRING~PERCH CO.

STRATFORD, CONN.



Unaffected by Giant Road Blows

SPRING-PERCH Springs are made from rigidly tested alloy steels. Under thermostatic pyrometer control, specially designed furnaces harden and temper these high-grade steels the Spring-Perch way.

Our organization has been making springs for

nearly 80 years — *and knows how.*

Before you specify the spring suspension for your new trucks or buses let us give you the benefit of our wealth of experience in solving your spring problems. This entails no obligation on your part. Send us your specifications.

Clarence F. Tollzien
Direct factory representative
for Michigan and Ohio
Office: 5-251 General
Motors Building,
Detroit, Mich.
Telephone—Empire 7298
Detroit

SPRING-PERCH COMPANY

Makers of Springs Since 1843

STRATFORD

CONNECTICUT

Because the tough, high profiled studs are Stagga'd there will be no skidding on the slippery roads of early spring..... for trucks equipped with

REPUBLIC
STAGHOUND
TRUCK TIRES

The surest road grip ever developed
And they give you
Extra Mileage
Extra Safety
Extra Economy
It's money in your pocket to equip your trucks with **STAGHOUNDS**

LEE TIRE & RUBBER CO.
REPUBLIC DIVISION
FACTORIES
CONSHOHOCKEN, PA.
YOUNGSTOWN, OHIO

LONG CLUTCH

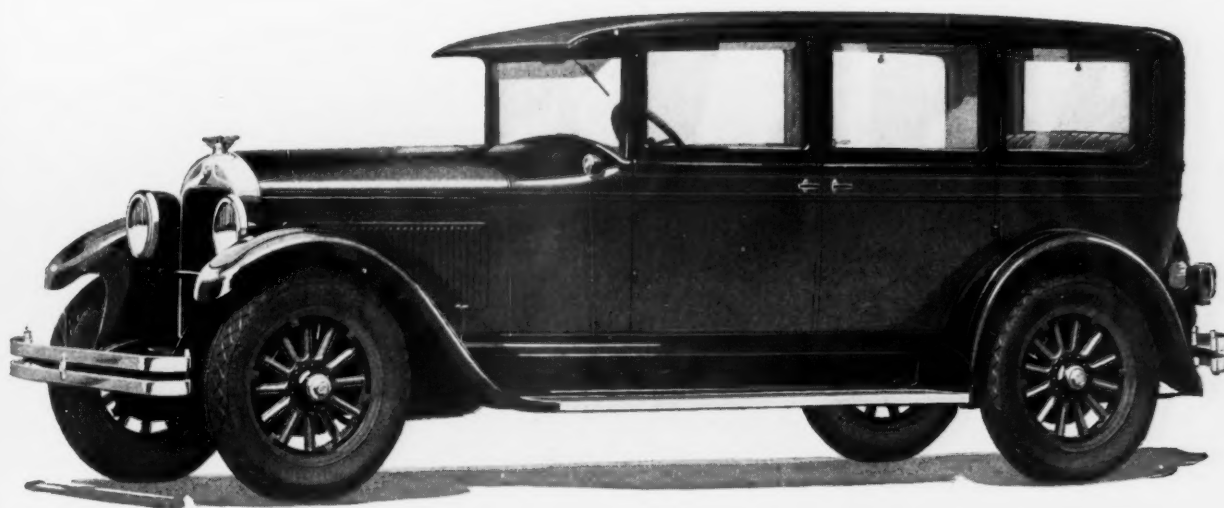


Since the advent of the Eight-Cylinder Hupmobile, Series E, we have been privileged to equip this fine car with our Model 9-C Clutch.

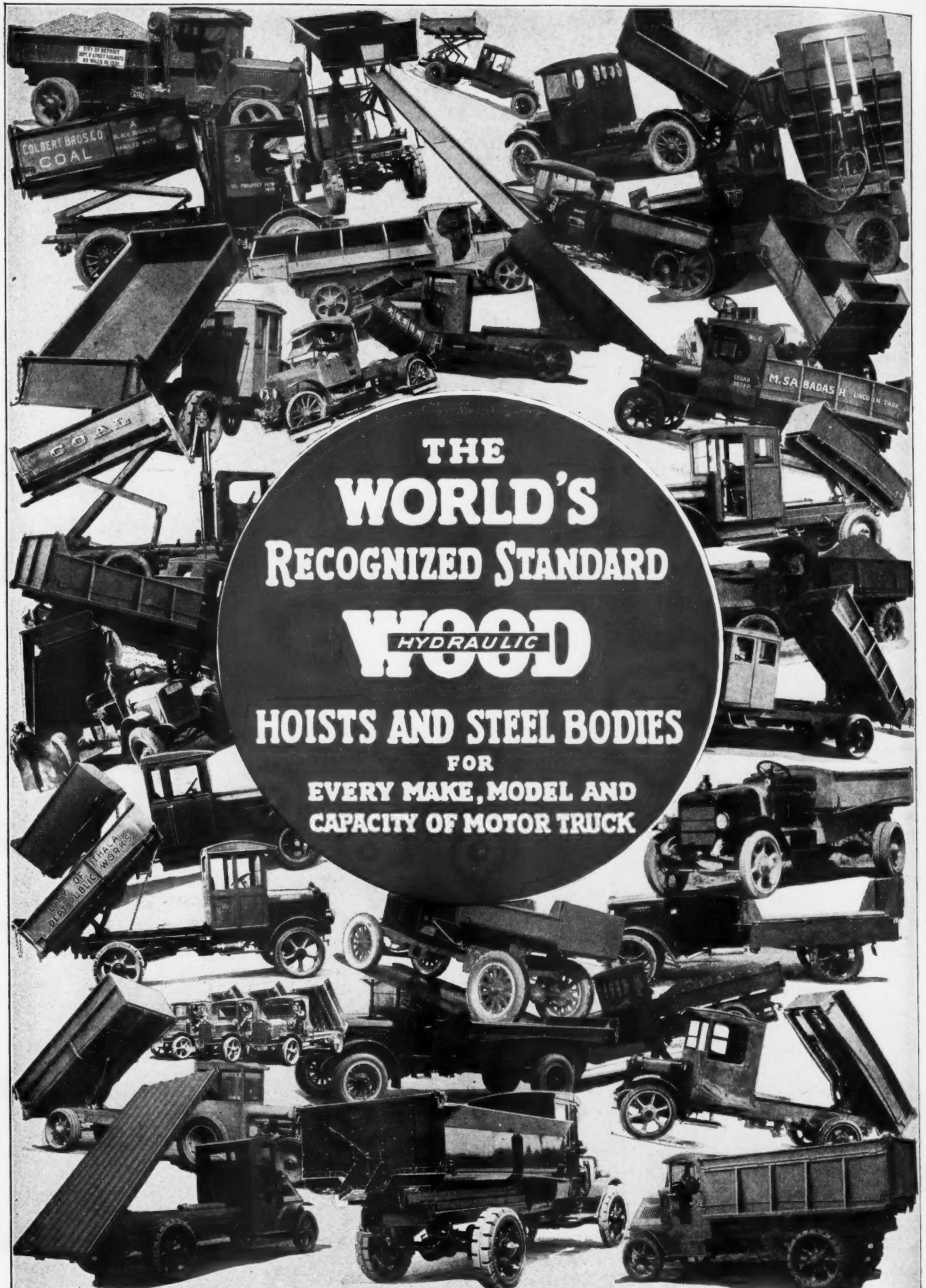
LONG MANUFACTURING CO.
DETROIT MICHIGAN



LONG
PRODUCTS
AUTOMOTIVE
CLUTCHES AND
RADIATORS



LONG MANUFACTURING COMPANY, DETROIT, MICHIGAN



**THE
WORLD'S
RECOGNIZED STANDARD
WOOD
HYDRAULIC
HOISTS AND STEEL BODIES
FOR
EVERY MAKE, MODEL AND
CAPACITY OF MOTOR TRUCK**

FREE: Something to help you make greater profit selling tires. A real money making idea. Read details below. Find out about this . . . today.

TIRE DEALERS!

Here's a proposition that's NEW

. . . A sound, practical selling idea to help you make more money selling tires

By RAY H. PADDOCK

YOU can actually demonstrate—to Bus and Truck Fleet accounts. *Without obligation to them, or to yourself.*

That *plus*—a tire that's right—in size, weight and price. A tire whose superiority stands out; one that *your own tire judgment* will back to the limit.

Beyond this, it is sold on a basis that allows you *twice the normal profit you now make*. Not only is each sale made easier, under this plan, *but the net to you on each sale is doubled, actually!*

We absorb credit risk

Don't worry about money or limited finance. If conditions are right—the prospect is right—we

make arrangements for absorption of credit. If there were any risk—it would be ours. But we made this tire—know the real stuff that's in it—therefore we're able to *back you to the limit with this unusual sales help.*

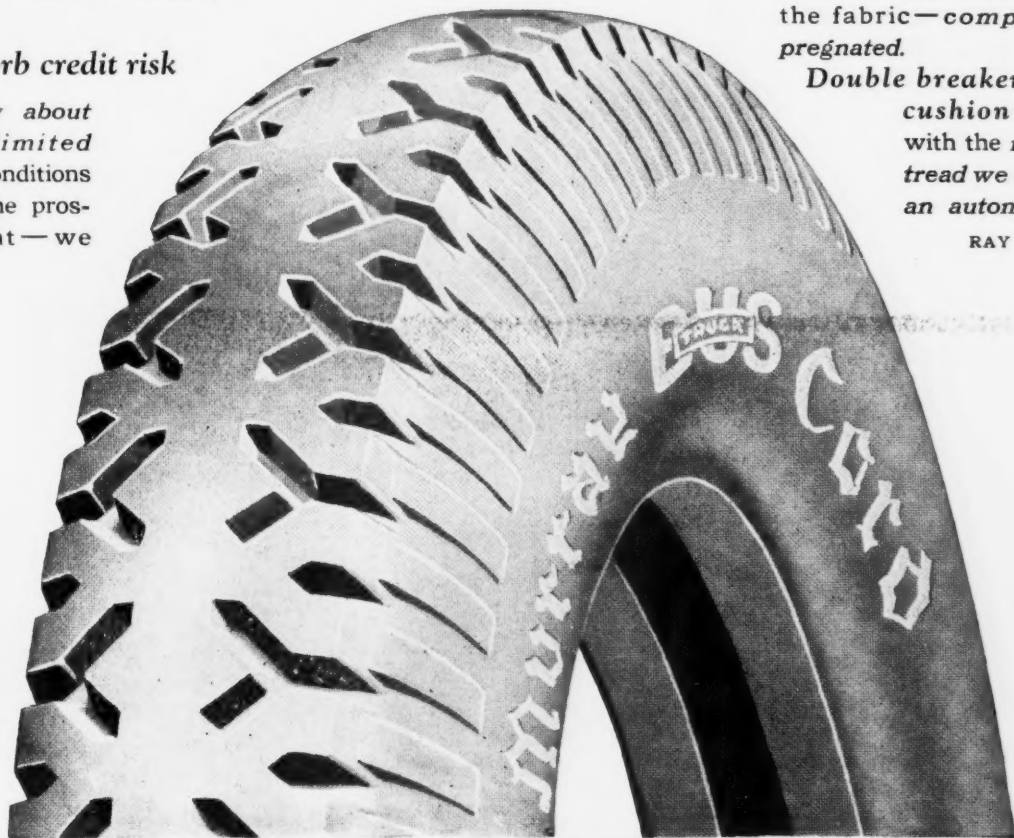
* * *

The *Murray* is ten-ply finest long staple cord fabric—full 1¼" staple.

By frictioning process with heavy steel calenders, rubber is driven through the fabric—*completely impregnated.*

Double breaker—double cushion—covered with the most costly tread we ever put on an automobile tire!

RAY H. PADDOCK



MURRAY RUBBER COMPANY, Trenton, N. J.

Announcing
a New Line of
Kelly-Springfield
Trucks

Never before have truck buyers been offered the values which characterize the 1926 line of Kelly-Springfield Trucks.

In four models—rated at 2, 3½, 5 and 7 tons—new heights of truck efficiency and economy are reached.

These models are equipped not only with powerful, economical engines and the most successful form of final drive according to load capacity and type of service, but seven-speed transmissions, steel wheels, and radius rods are standard equipment.

Compared unit for unit, and in their entirety, with other trucks, it is immediately apparent that Kelly-Springfield Trucks more than ever deserve their reputation for unusual performance ability.

If Kelly-Springfield Trucks are not represented in your territory and you would like to sell this new line of trucks—produced by one of the most substantial manufacturers in the industry—write us without delay.

THE AMERICAN BUS & TRUCK COMPANY, INC.
SPRINGFIELD, OHIO



Chairman of the Board



Make Fleet Business Possible—Add to Gross Profit

Starting with three Garford Trucks in 1915, the PUBLIC LEDGER, of Philadelphia, have purchased additional Garfords throughout the years to follow. Hundreds of other fleets throughout the country have grown from a single Garford.

Business men want to know in brief—the purchase price, cost of upkeep and the length of life of the trucks they have under consideration. Experience has proven the cost to truck owners is not always the initial cost but that of maintenance. For that reason, Garford has

concentrated their efforts upon reducing operating expenses. This has been accomplished by using only the best of material and units. That this policy results in an ultimate saving to Garford users is well illustrated in this instance of the PUBLIC LEDGER adding to their Garford fleet year by year.

Garford Trucks and Buses offer to automotive merchandisers an opportunity to add to their gross profits by virtue of the product producing for the owners such economical transportation that can be secured from units—"QUALITY BUILT."

Write for Garford "Quality Built" Booklet

THE GARFORD MOTOR TRUCK COMPANY

715 Wapak Road

Lima, Ohio



The fleet of Garford 1-Ton Trucks in operation for the PUBLIC LEDGER at Philadelphia



GLOBE ICE CREAM CO.

JEFFERSON ST. BLDG.
LOS ANGELES

February 23, 1926.

MANUFACTURERS
PEOPLES
PURE ICE
HUMBOLDT 7790

Eisemann Magneto Company,
165 Broadway,
New York, N. Y.

Gentlemen:

We take great pleasure in writing to you at this time, calling your attention to the most satisfactory and unusual results we have been obtaining through the use of Eisemann magnetos on our fleet of Garford trucks.

When the Globe Ice Cream Company first started to do business in Los Angeles, in 1922, we used three different makes of magnetos on our fleet, with the idea in mind of adopting as standard equipment the one which would show the best results under our normal operating conditions.

As time went on we eliminated all magnetos excepting the Eisemann, which we have adopted as standard equipment on all the trucks of our present fleet, and we now specify Eisemann magnetos on all orders for additional trucks which use magneto ignition.

Up to the present date we have not experienced a truck stop or a failure in ignition on a unit which was equipped with an Eisemann. Our expense in keeping these units in a 100% efficient condition has been practically nil, and some of our trucks have passed the 37,000 mile mark.

Allow us also to state that the efficient service and cooperation such as information requested, testing, and maintaining a contact with the user as extended to us by the Electric Equipment Company, of this city, stands out in a class by itself on a pedestal of 100% efficiency.

The above mentioned reasons are why the Eisemann magneto is the best magneto in our opinion, and we wish to compliment you on your product.

Yours very truly,
GLOBE ICE CREAM CO.

CMC:E

Geo. M. Conney

Superintendent of Transportation.



EISEMANN

ELECTRICAL EQUIPMENT

Keeping Step With **A GREAT INDUSTRY**

The imposing fleets of buses and trucks in operation throughout the motorized world are dependent for their success upon the right character of

Operation and Maintenance

Corporations and individuals who have thousands, and in many cases hundreds of thousands, of dollars invested in equipment—both rolling and service station—are giving an increasing amount of study and general consideration to the constantly arising problems which deal with the promotion of efficient operation and the cutting of maintenance costs.

Intensive field research—actual contact with the men on the firing line whose operation and maintenance problems are real—has determined the publishers of Motor Transport upon a constructive policy to broaden its field and perform an increased service that will be instantly appealing to the thousands of owners and maintenance specialists who have the responsibility of keeping the great bus and truck fleets of the country up to a point of profitable efficiency.

This means publishing vision. It means a broadened editorial policy. It means an advantage—to subscriber and advertiser alike—that will be unique in the annals of publications designed for fleet owners and operators.

Buses

Leadership in Y A GREAT INDUSTRY

That the new editorial policy may be more fittingly promulgated it has been decided to change the publication name from Motor Transport to

M Operation & Maintenance

Change of name, cover and dress will become effective with the May 10th issue. Typographically it will take its place among the best designed and edited business papers in the country.

Editorially a greater amount of space will be devoted to the subject of MAINTENANCE because no matter what make of bus or truck is owned, who buys it, or what it costs, proper maintenance determines the relative success of the vehicle.

Under the subject of Maintenance will come engine and chassis overhauling, body repairing and overhauling, painting, washing, care of tires, lubrication, machine tool operation, service station equipment, replacement parts handling, hiring and training of mechanics, service station cost records, etc.

Under the heading of Operation will be discussed the handling of drivers, cost accounting, routing, scheduling and dispatching, purchasing, terminal facilities, etc.

Trucks

ZENITH

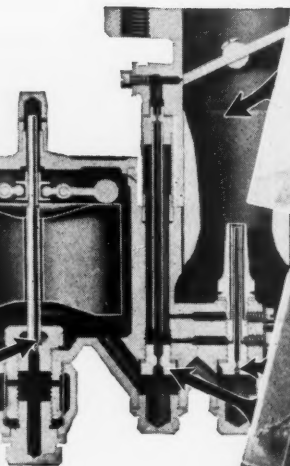
Four Reasons for Zenith Supremacy



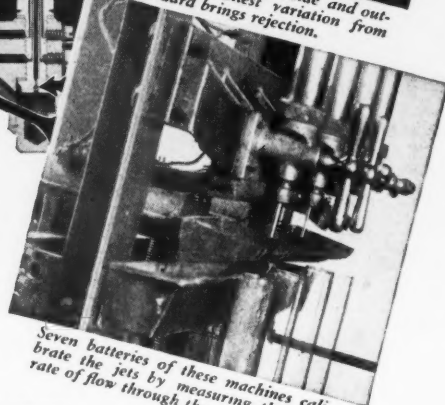
A beam of light, projected on a screen, detects the slightest variation in the weight of floats.



Needle valve points are inspected under powerful microscopes, to detect any flaws hidden from the eye.



"Chokes" are gauged inside and outside. The smallest variation from standard brings rejection.



Seven batteries of these machines calibrate the jets by measuring the exact rate of flow through the opening.

ZENITH

CARBURETOR

Ordinary methods of inspection are not sufficiently delicate to insure exact duplication, in production. Special devices, designed and built by us, insure that all controlling parts of a size are really identical; that when these parts

are assembled, all Zeniths for a given motor will act exactly alike.

That is why results obtained by Zenith experts in factory tests are duplicated by the car owners in actual service.

ZENITH-DETROIT CORPORATION

Manufacturer of

ZENITH CARBURETORS

DETROIT

MICHIGAN

NEW YORK

Branches:

CLEVELAND

CHICAGO

Over 1200 Service Stations

Member Motor Truck Industries, Inc., of America

United MOTOR TRUCKS



Over 200,000 Miles of "Experience"

Experience—"Skill, facility or practical wisdom,
gained by personal knowledge."

—Webster.

A life of sixteen years is not, generally speaking, an extraordinary length of time for a concern to look back upon.

But in the truck industry, sixteen years goes back almost to its birth. In 1910 there were only 6,000 trucks registered in the United States. Today the number exceeds two and a half millions.

The United had its beginning in 1910. Sixteen years of exclusive truck building experience, sixteen years devoted to solving one problem, sixteen years of growth and improvement—these are incorporated in the United line of 1926.

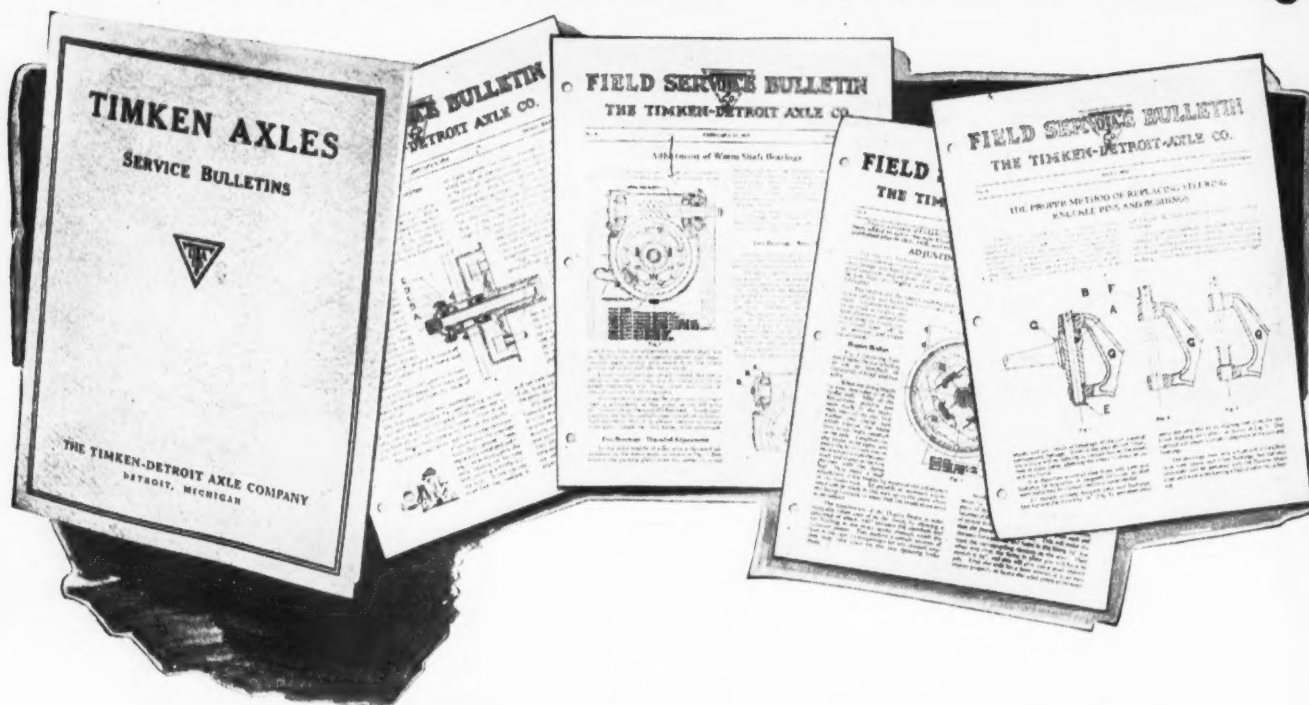
To dealers, the United complete line offers exceptional opportunities—write us for information.

UNITED MOTORS PRODUCTS COMPANY

Grand Rapids, Michigan

"Quality Transportation Units Since 1910"

TIMKEN



Service Bulletins Available

If you own or service vehicles equipped with Timken Axles you should have these bulletins on file for ready reference. They are in an attractive loose-leaf binder and cover the following subjects: (1) Inspection Chart for Front and Rear Axles. (2) Care and Adjustment of Front Wheel Bearings. (3) Adjustment of Rear Wheel Bearings—Full

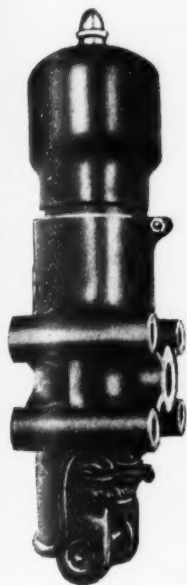
Floating Type. (4) Adjustment of Rear Wheel Bearings—Fixed Hub Type. (5) Adjustment of Thrust Bearings on Steering Knuckle Pins. (6) Adjustment of Worm Shaft Bearings. (7) Adjustment of Differential Bearings and Worm Gearing. (8) Adjusting and Relining Brakes. (9) Replacing Steering Knuckle Pins and Bushings. (10) Lubrication.

Let us know how many copies you can use



THE TIMKEN-DETROIT AXLE CO., DETROIT, MICH.

AXLES



WESTINGHOUSE AIR SPRINGS—



are used by these large
truck fleet operators

Westinghouse Air Springs have proved to be an economic necessity by such well-known firms as: Boston Edison Co., Brooklyn Edison Co., American Can Co., Frank and Seder Co., American Glass Co., Gimbel Bros., Standard Oil Company of Ohio, D. W. Dunn Co., and scores of others who operate fleets comprising anywhere from ten to fifty trucks. Their records show—

Reduced maintenance costs
Increased tire mileage
Reduced driver fatigue
Increased daily truck mileage
Reduced breakage of fragile loads.

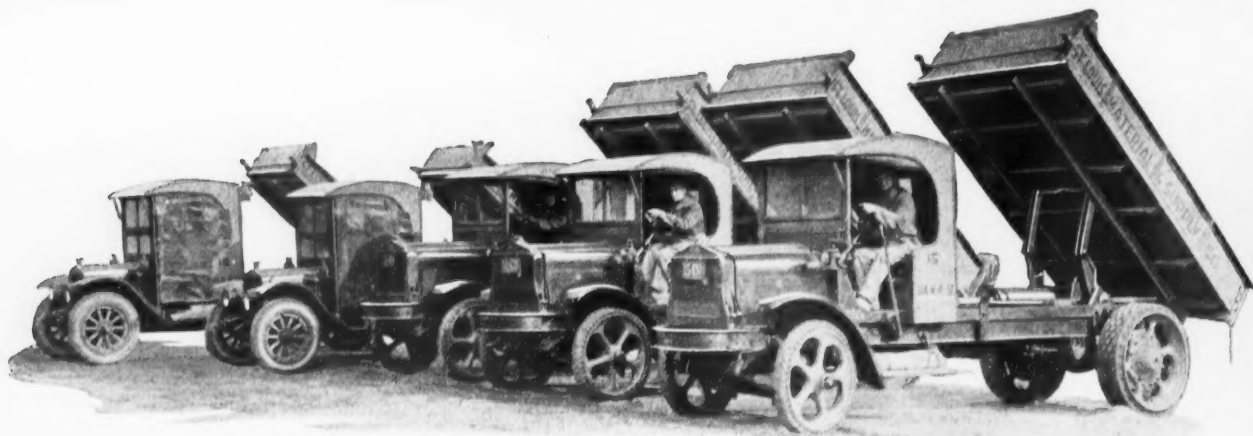


Truck dealers and truck salesmen will find the Westinghouse Air Spring a valuable sales asset because it assures better all around performance and increased satisfaction from the trucks they sell.

Write for details of our sales proposition

The Westinghouse Air Spring Co.
Factory and General Offices
NEW HAVEN, CONNECTICUT

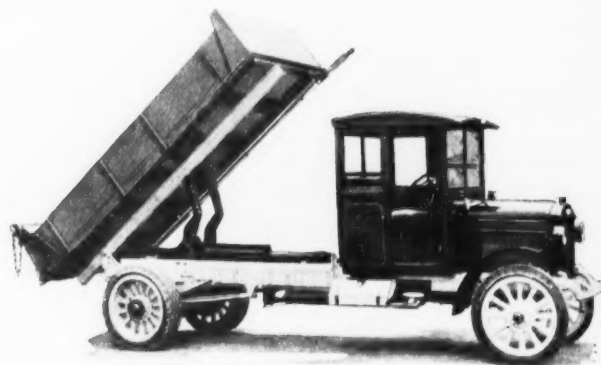
See Our Exhibit at the Boston Show



The St. Louis Material and Supply Company, St. Louis, Mo., operates this fleet of five White Trucks all St. Paul Hydraulic Hoist equipped, of course!

Fourteen Years Old March Third

St. Paul Hydraulic Hoists are fourteen years old March the Third. That day marks the installation of the first Hydraulic Hoist built for Commercial purposes. Of course, they were in process of development months before.



A Heavy Duty St. Paul Underbody Hoist installation on an Armleder Truck

The First St. Paul Hoist is Still in Daily Service

This fourteen years of Hoist experience is back of every St. Paul Hoist and is a guarantee of quality and long service.

The Proof of Service is Time

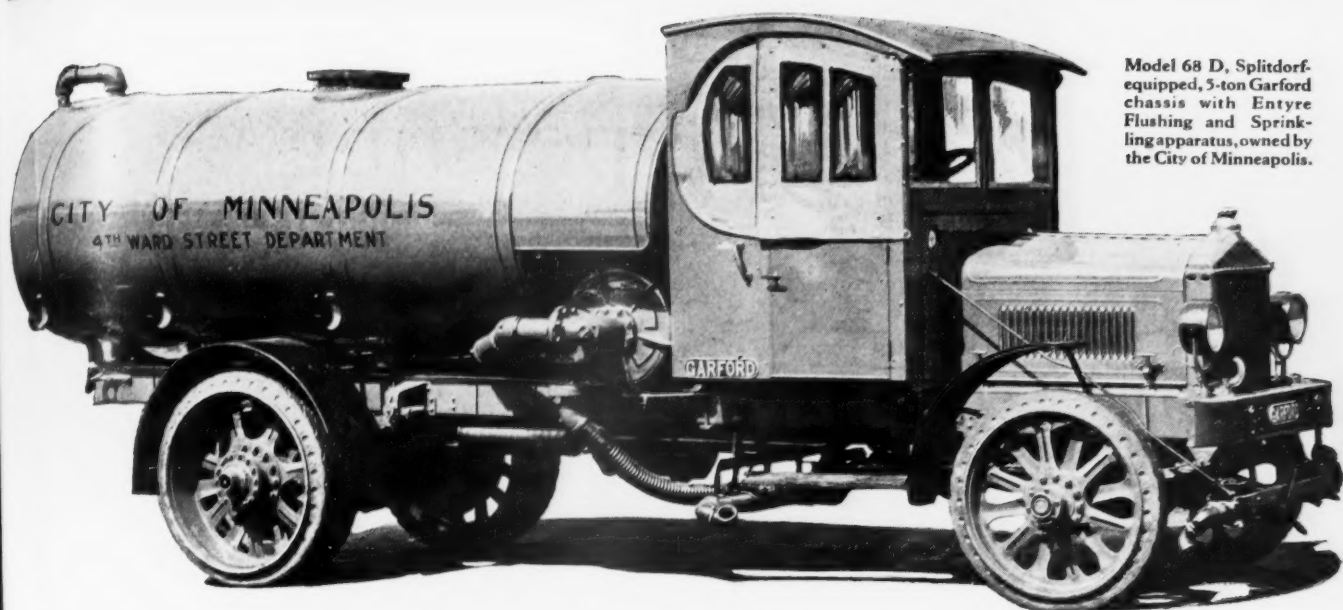
HYDRAULIC HOIST MANUFACTURING CO.

FACTORIES at St. Paul, Minnesota

DISTRIBUTORS and SERVICE STATIONS Everywhere

Write for Name and Address of One Nearest You

—St. Paul—
VERTICAL AND UNDERBODY
HYDRAULIC HOISTS

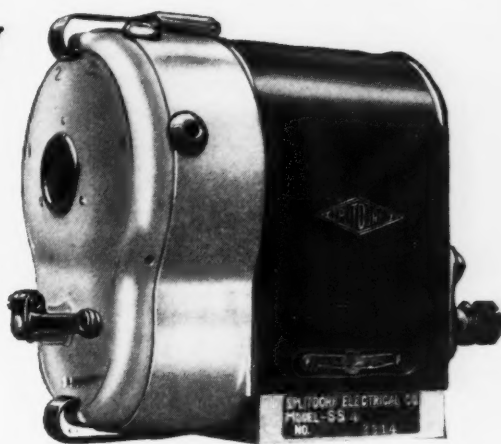


Model 68 D, Splitdorf-equipped, 5-ton Garford chassis with Entyre Flushing and Sprinkling apparatus, owned by the City of Minneapolis.

Where dependability is demanded...

IN SERVICE such as that encountered in daily street cleaning work, as well as in truck, bus or tractor duty where day-in and day-out dependability is required—there you will find Splitdorf Magneto Ignition supplying the hot, fat sparks that keep the engines going.

For in the manufacture of ignition apparatus, the name **SPLITDORF** signifies the utmost in **DEPENDABILITY**.



The Splitdorf Model SS Magneto which is regular equipment on Garford Trucks

SPLITDORF ELECTRICAL COMPANY

392 High Street : Newark, N. J.

Subsidiary of
Splitdorf-Bethlehem Electrical Company



Truck Operating and Maintenance Costs

and their relation to the vehicles you are selling

When the operator puts one of your vehicles into service, Mr. Dealer, you confidently hope that his organization, methods and experience are such that the vehicle can be expected to render the utmost efficiency.

If it doesn't perform as he expects from the standpoint of economy, it's a direct reflection upon the dealer and the product he represents.

That is invariably the case when the operator has no reliable cost-keeping system or methods.

Insure yourself against such dissatisfaction by recommending to your customers the

MOTOR TRANSPORT Standard Cost System

Thousands of operators throughout the country have installed this system—many dealers ask their customers to use it.

It is simple—but 2 forms are used—a driver's daily route and a monthly summary sheet, and the cost is but \$9.50.

The complete system consists of

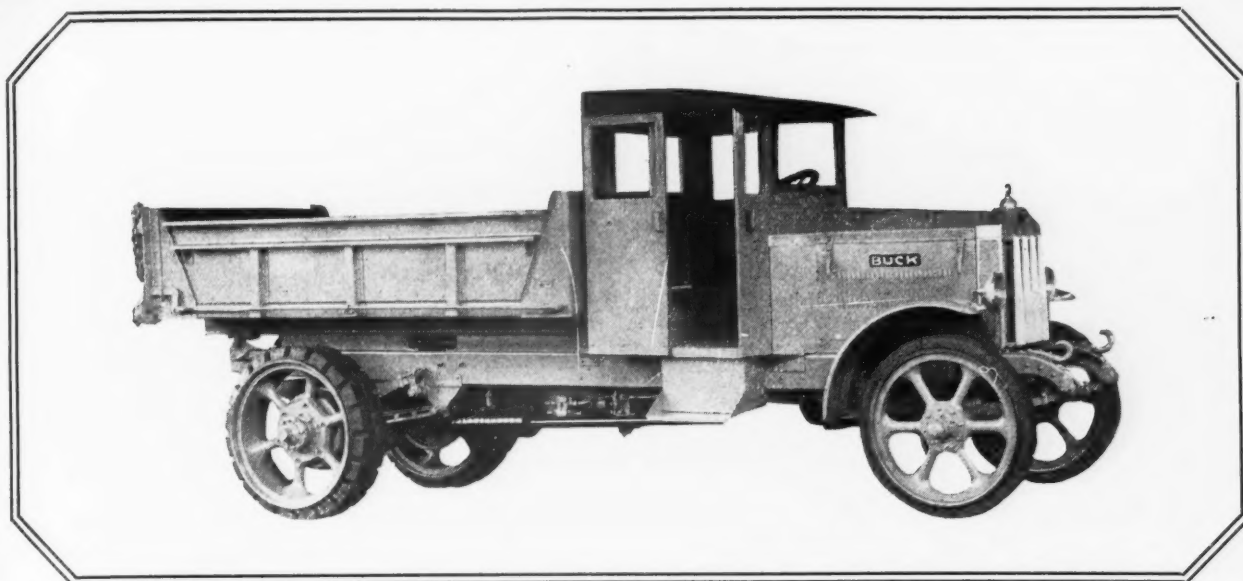
- 500 Driver's Cards
- 60 Monthly Summary Sheets
- 1 Complete Instruction Booklet
- 1 Binder

Write for sample forms and details

CHILTON CLASS JOURNAL COMPANY

Chestnut and 56th Streets

Philadelphia, Pa.



WHAT EVERY DEALER WANTS

A COMPLETE line, built of modern units, for modern needs

In the well-known line of Buck trucks, the dealer finds an answer to his demand for a *complete* line of trucks—built of thoroughly tested, 100% modern units—meeting every demand for safe, high speed transportation combined with minimum maintenance costs.

Ten models ranging from 1½ tons to 7½ tons cover the entire truck field—giving a logical model for every customer.

Two are 4-cylinder speed chassis so popular for fast deliveries.

Two are medium weight sixes with enviable upkeep records to justify their in-

creasing sales. The remaining six models are all heavy-duty units with seven forward speeds and two reverses. Three with 4-cylinder motors and three with 6-cylinder motors.

Every unit built into the entire line is nationally known for its faithful performance and low overhead.

The result is a line of fast-selling trucks which you will be proud to represent. They are sold exclusively through dealers wherever dealers are available. You will be interested in the proposition we are prepared to offer you. Investigate!

The Buck Motor Truck Company
Bellevue Ohio, U. S. A.



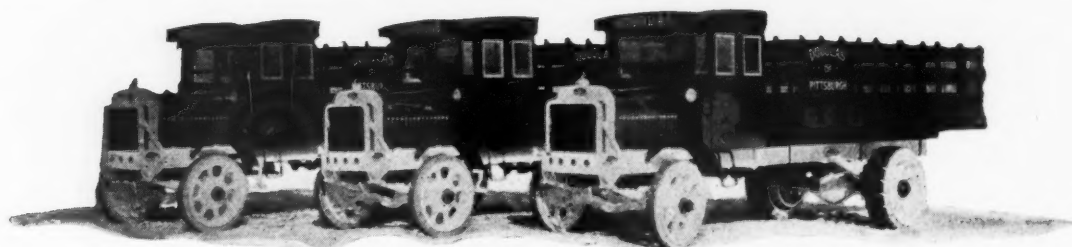
BUCK TRUCKS



QUALITY makes your dollars worth more because it is a good investment and gives an earning power that is worth far more than the cash outlay required to make the purchase. But cheapness makes your dollars worth less because its ability to serve well has been shrunk out of it in the first place, in order that it may be sold at a low, tempting price.

THE MATHER SPRING COMPANY, TOLEDO, OHIO

Makers of scientifically heat-treated springs for the leading passenger car and truck manufacturers in America and Europe



LET us explain why Grammm-Bernstein Trucks mean greater profit for the dealer—and a better investment for his customers.

There is a Grammm-Bernstein Truck for every conceivable need.

Write us—here's a sales plan that's a money maker.

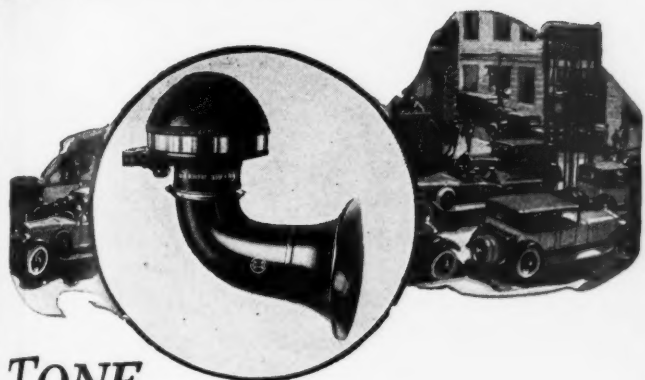
GRAMM-BERNSTEIN TRUCK CORPORATION

LIMA

OHIO



24 Years Experience Engineering Trucks



TONE

makes this horn truly...

"The voice of the fine car"

MUSICAL, yet positive in its warning—clear, vibrant, penetrating—the tone of the *Original* Bosch Horn is unlike that of any other warning signal.

The *Original* Bosch Horn is of the vibratory type. Its action is lastingly trouble-proof. No motor to wear out or give trouble. It is in every way up to the high standard of *Original* Bosch.

No wonder owners of fine motor cars are buying it, not only to replace worn-out equipment but often to put on the new car in place of the horn they find there.

Our dealers everywhere are finding this horn a quick selling and profitable item. If you are not already carrying it, write us for details of selling plan. You have the opportunity to do a neat business if you act quickly. Address: Robert

Bosch Magneto Company, Inc., 119c West 64th Street, New York. Chicago Branch: 1302 South Wabash Avenue.



Note

No finer tribute can be paid the *Original* Bosch Horn than the way it is being imitated. But remember: the *Original* Bosch Horn owes its popularity to the high standard of materials and workmanship which characterize it and all *Original* Bosch products. To give your customers this quality, you must give them *Original* Bosch. Look for the name Robert Bosch and this trademark on all *Original* Bosch products. They are your guaranty of *Original* Bosch quality as known the world over since 1897.

The Original
Bosch

ROBERT · BOSCH · MAGNETO COMPANY · INC.

No connection whatsoever with the American Bosch Magneto Corporation



Public Service Corporations

SHREWD, careful, analytical buyers, are public service corporations. They see to it that what they spend must come back to them with profit added. That is why so many of them are standardizing on the Ohmer Odometer for truck mileage records.

For Every Truck Owner

Whether you operate two or three trucks or a big fleet, you will find, as these public service corporations are finding, that the Ohmer Odometer will give you accurate, reliable, infallible mileage records as a basis for positive control of operating costs. It is especially designed for the hard grueling service incident to truck operation. Rugged and strong, it stands rough usage. It is driven from the transmission and its small number of parts move with only 1/16 the speed of an ordinary speedometer. There is nothing to break, nothing to wear out.

Backed by World-wide Organization

It is easily and quickly installed wherever you want it—on dash, floor, seat support, or outside frame. And once installed it gives years of trouble-free service.

It is a product of the largest manufacturer in the world of mileage and fare recorders—the product of 26 years of engineering experience in development and perfecting various precision recording instruments.

Let us send you the details of how it is saving money for big fleet owners everywhere, and why it will save money for you. Also let us send you a copy of our free book, entitled "Horse Sense," giving a simplified system of truck cost accounting. There is no obligation. Write today.

OHMER FARE REGISTER CO.
Dept. B-1, DAYTON, OHIO

OHMER
ODOMETER
(Reg. U. S. Pat. Office.)

OTHER OHMER PRODUCTS

Odometers
Hub Odometers
Truck Auditors
Recordographs
Taximeters
Fare Registers
Fare Boxes
Transfer Machines

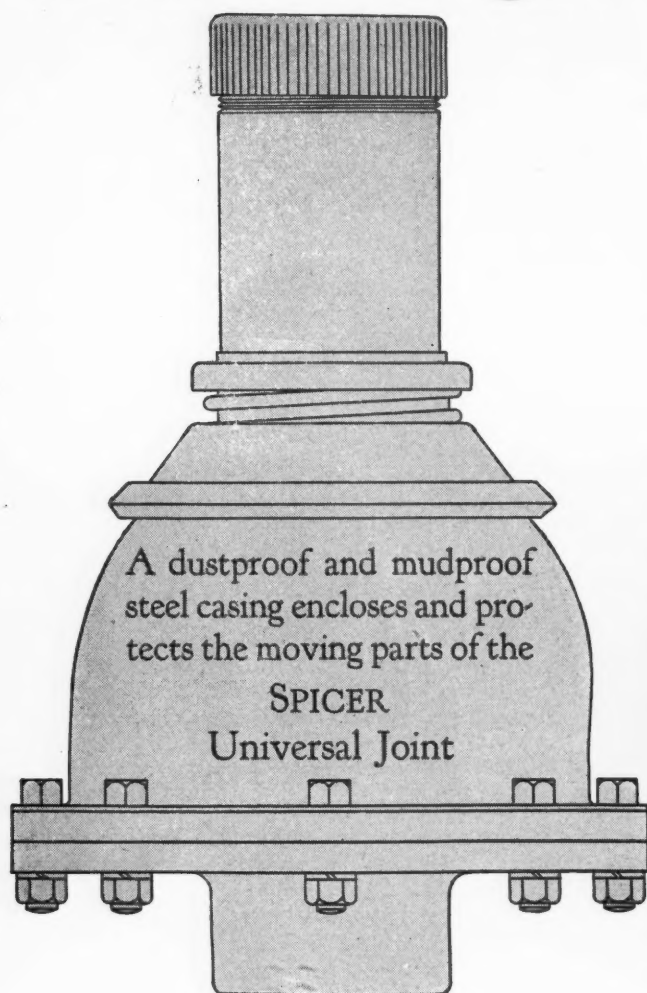
LOOK FOR THIS SIGN



PRICES

"Master" for large cars, motor
busses and motor boats . . \$25
"Standard" for passenger cars \$21
"Junior" for motorcycles . . \$16

ENCLOSED to shut out grit

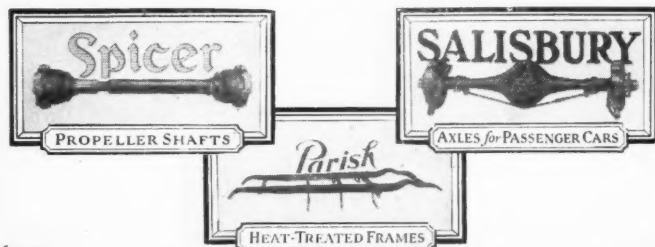


THIS casing does more than shut out grit. It holds a liberal supply of lubricant. The moving parts are immersed in a grease bath while working, picking up fresh lubricant constantly.

That is one reason why the large majority of finely built cars, buses and trucks have carried Spicer equipment since the infancy days of the industry.

Associated Spicer Companies

Spicer Manufacturing Corporation, South Plainfield, N. J.
Parish Manufacturing Corporation, Reading, Pa.
Salisbury Axle Company, Jamestown, N. Y.



6131-1

STEWART-WARNER



Warner 74-A
for Truck
and Bus



Know your cost of operation. You cannot figure your profits unless you know your cost.

The Warner 74-A gives speed and mileage accurately in all temperatures. Sealed to prevent tampering with mileage odometers.

Tilts upward so as to be easily read. Speed to 60 miles per hour. Total 100,000 miles. Trip 100 miles.

Complete with fittings for any truck or bus. Specify make, model, year and size of truck tire when ordering.

STEWART-WARNER SPEEDOMETER COR'N
1826 Diversey Parkway • CHICAGO, U. S. A.

TWELVE MILLION PEOPLE
ARE TODAY USING
STEWART-WARNER
PRODUCTS

Nearly 36,000,000 square yards of concrete street pavement were placed under contract in 1925

Over 1000 Cities Laid Concrete Streets Last Year

The reason for this nation-wide popularity of **concrete street pavement** is the fact that it is the finest looking pavement money can buy, and gives greater service value per dollar than any other type.

All of the facts are in our free booklet on "Concrete Streets." Ask for your copy.

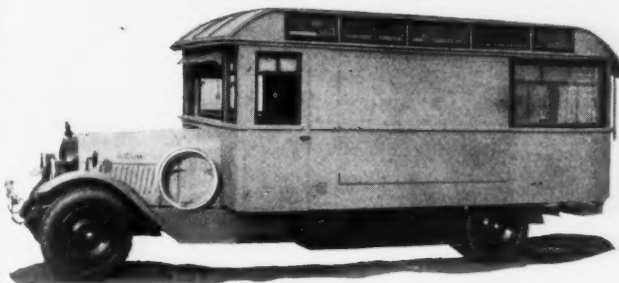
PORTLAND CEMENT ASSOCIATION
111 West Washington St.
Chicago

A National Organization to Improve and Extend the Uses of Concrete

OFFICES IN 31 CITIES

WIEDMAN CAMP BODIES

NORTH TONAWANDA, N. Y.



Sport Model Body

Will fit any Speed Truck Made

OR

Touring Car Chassis
Extended 30" to 50"

ALSO

Light Weight Bus Chassis

Mounted Weight 759 Lbs.

Body Complete \$830.00
Plus Furnishings
F. O. B. North Tonawanda, N. Y.

Optional Interior Furnishings

Box Spring Mattresses
Kitchenette
Diningette
Refrigerator
Water Pump and Basin
Medicine Cabinet
Shower Bath
Wardrobes with Mirrors
Wicker Chairs
Window Shades
Curtains
Chemical Toilet
Rear Platform, Screened Awning
Rear Steamer Trunks

Reliable Distributors Wanted

WIEDMAN BODY COMPANY
NORTH TONAWANDA, N. Y.

For Each Pneumatic Job

Every truck you sell with pneumatic tires should suggest the installation of a Kellogg Engine Driven Tire Pump. Many manufacturers, realizing this, have put on Kellogg's as standard equipment.

Truck dealers have found that when Kellogg's are not standard equipment that it never fails to make a hit with the buyer when they sell them on the idea of installing a Kellogg.

That's why you'll find the following makes of trucks either carrying Kellogg's as standard equipment or attachments for Kellogg's.

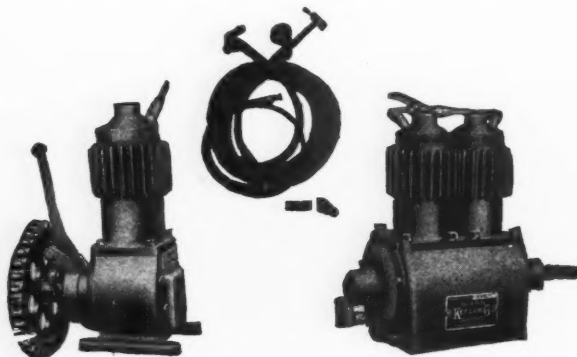
USERS

Acme	Gotfredson
Advance Rumely	Guilder
American-LaFrance	Hawkeye Dart
American Motor	Huffman
Body	Larrabee
Atterbury	Maccar
Biederman	Mack
Brockway	Maxim
Century	Minneapolis Steel
Clydesdale	Nelson
Coleman	Pierce-Arrow
Commerce	Republic
Corbitt	Ruggles
Day-Elder	Standard
Diamond T	Stewart
Federal	United
Four-Wheel Drive	White
Garford	Wichita
Gary	Winther
G. M. C.	Yellow Coach

KELLOGG MFG. CO.

Rochester, N. Y.

*Also manufacturers of air compressors
for service stations and air brakes*



PIERCE Governors



~insure what the public desires most

Safe and comfortable transportation—that's what the public desires most—and Pierce Governors go a long way toward providing it. Reckless driving at high speeds often leads to serious mishaps, but Pierce Governor-controlled buses are always positively kept within safe driving range.

Again, there's longer and more economical bus service where the excessive jarring, vibration and rough treatment incident to high speeds are eliminated.

Over 150 manufacturers of motors, buses, trucks and power machinery are obtaining positive regulation of engine speed with Pierce Governors. Let us show you how others have economized. Complete details gladly supplied on request. Ask for Booklet No. 108.

THE PIERCE GOVERNOR CO.

"World's Largest Governor Builders"

ANDERSON, INDIANA



Republic is one of several well-known
bus builders using Perfex Radiators



The O.K. of 100 Skeptics

More than a hundred well known industrial and automotive engineers have put an okeh on Perfex Bronze-Core radiator construction and the amazing strength of its cross-braced design.

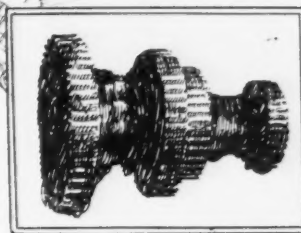
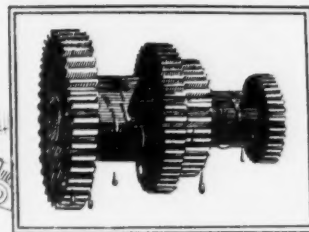
These engineers are designers and builders of equipment that is known throughout the world for quality construction and long, dependable service. When these men specify Perfex Radiators for over 100 different makers, you know that choice is based on tests covering every phase of motor operation.

We have an array of facts about design and efficient cooling which should be of interest to every engineer. It covers the results of 15 years' successful experience in automotive and industrial cooling and includes a brief plan for putting our service at your disposal.

Our engineering department will gladly collaborate with your own or offer a complete designing service if desired. Write us, placing your problems before us.

RACINE RADIATOR COMPANY, Racine, Wis.

PERFEX
THE PERFECT RADIATOR



Which is better for gears?

Many lubricants quickly drain off the gears whenever they are idle. When started up again the surface is practically dry, causing undue wear on gear-teeth, shafts and bearings.

Not so with Dixon's 677. Dixon's *clings*. No matter how long the gears are idle, they are always coated with lubricant.

When you sell a truck or bus chassis, see that its transmission and differential are lubricated with Dixon's 677, the Graphited Lubricant that doesn't drain off—it *clings*.

Write today for the Dixon Dealer Deal No. 112-G—with recommendations for scientific all-weather lubrication for all points on trucks and bus chassis.

Write for Dixon Sales Plan

Joseph Dixon Crucible Company
Jersey City, N. J.  Established 1827

DIXON'S
677

for ALL YEAR ROUND Lubrication

The Measure of Your Message

THE measure of your message is the number of actual readers reached by the publications carrying your advertising.

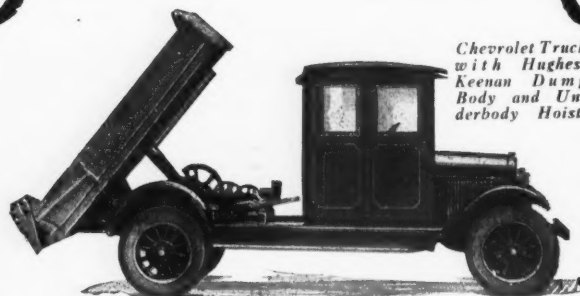
You may buy "9,000 circulation," but is it delivered, or is it merely a "claim" of the publisher?

The A. B. C. offers a service that will enable the advertiser and advertising agent to measure every message placed in the leading publications of the United States and Canada.

Every day in all parts of the Continent A. B. C. auditors are checking the records of publishers, and their findings are tabulated in the form of A. B. C. reports.

These reports, by the authentic, reliable, verified data they contain, enable the advertiser to measure exactly how widely his message has been distributed.

Ask for the latest A. B. C. Report on the Commercial Car Journal. It is a member of the A. B. C.



*Chevrolet Truck
with Hughes-
Keenan Dump
Body and Un-
derbody Hoist.*

Always on the Job

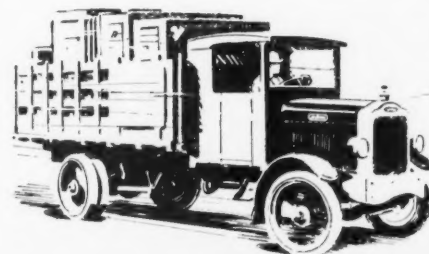
DAY after day, month by month, through the most wicked hard service a driver can put them to, Hughes-Keenan Steel Dump Bodies will go without a flicker—not a break down, never out of order, handling an amazing number of loads per dollar of their cost.

They're made with the steel guts to do it. Thousands in hard use are proof. You can sell them with confidence. They'll back up your promises.

If you are not using Hughes-Keenan Dump Bodies to increase your truck sales—and your profits—you're overlooking a good bet.

THE HUGHES-KEENAN CO. Box 21 Mansfield, Ohio

HUGHES-KEENAN
Steel Truck Bodies

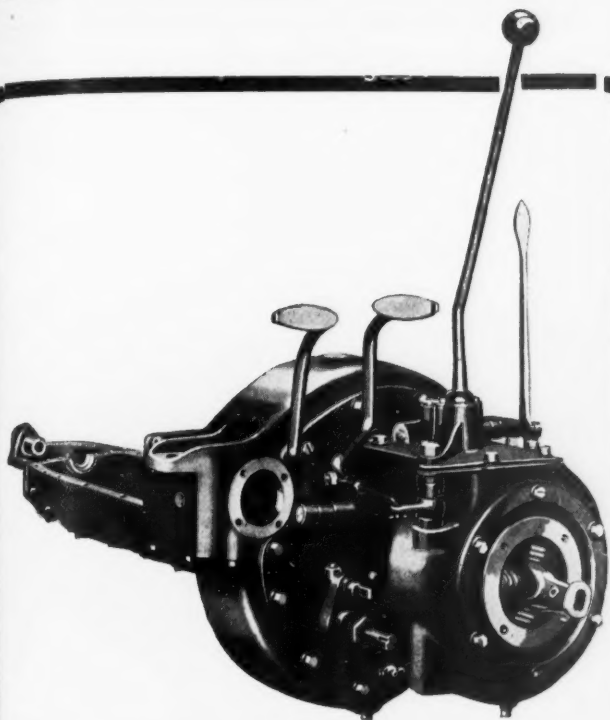


Gotfredson

Ranging from the dependable and economical Speed Truck to the powerful Heavy Duty models Gotfredson offers a complete line suitable for all transportation requirements.

*A Gotfredson Sales Franchise
can be had in certain territories*

Gotfredson Corporation
MOTOR TRUCK DIVISION
3601 Gratiot Avenue
Detroit, Michigan.



The Profit Angle

Profits in the automotive industry can come in two forms—both substantially reflected in your bank balance.

The first profit is, of course, the genuine profit from your customers' satisfaction with satisfactory merchandise and the second is in the dollars and cents column of your ledger.

Both profits may be enjoyed by the dealer in Himico, the replacement transmission for Ford cars and trucks.

Would you know how to turn the present percentage of discount on Ford trucks to a figure of 28% on gross sales?—then ask for our explanation of the actual cash benefits accruing to progressive dealers who sell and install Himico transmissions.

Himico transmissions are genuine *replacements* for the original planetary transmission in Ford equipment. All band troubles are over when Himico replaces the drums and bands with a genuine sliding gear transmission, fitting the Ford engine and chassis without cutting or alteration.

The improvement in operation is nothing short of marvelous! Friction losses are reduced to a minimum and the amount of usable power delivered to the rear wheels makes a Himico equipped Ford the Superior truck or car in the low priced field.

For contractors, creameries, lumber dealers, coal and building dealers; doctors, salesmen, collectors and others whose use of a car or trucks is severe, the Himico-Ford will meet all needs.

There is a strong, increasing demand for this transmission. It is used in every state of the Union. You may share in the profits of its sale. Write today for particulars.

TO JOBBERS: We have an unusually attractive proposition in unallotted territory. Write, wire or phone for details.

HINKLEY MOTORS, INC.

P. O. Box J-839

Detroit, Michigan

HIMICO
TRANSMISSIONS
POWER PLANTS



Sell "Income Protection" to Car Rental Companies

THEY sell Mileage—which has to be measured. And they lose if it's not measured *in full*.

You can offer them an accurate, full-mileage recorder which can't be tricked to register falsely; can't be put out of running by the roughest service. The

Veeder

HUB ODOMETER™

—now supplied in a special model for Rental Companies, with a distinctive nickeled cap.

It looks as good as the instrument wears—and it's the one place to look for the right line on rental dues.

Yes, we've special circulars for your use in selling "Veeder" for Ford, Star, Chevrolet cars. List price of the model for Rental Companies, \$15.

The Veeder Mfg. Co.
10 Sargeant Street Hartford, Conn.

Sales and Service Stations in

Atlanta, Ga.
Baltimore, Md.
Boston, Mass.
Buffalo, N. Y.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Texas
Denver, Colo.
Detroit, Mich.
Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Cal.
Montreal, Quebec

New Orleans, La.
New York, N. Y.
Philadelphia, Pa.
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San Francisco, Cal.
Syracuse, N. Y.
Tacoma, Wash.
Toronto, Ontario
Washington, D. C.
—and other cities.

TRIBLOC CHAIN HOIST

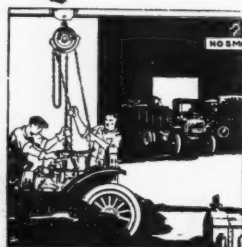


Good tools for better work

Making the worker's job more agreeable shows a favorable result on production cost sheets.

Get this result in your shop by transferring the costly drudgery of load lifting to sturdy Tribloc Chain Hoists. Proper load lifting devices keep your mechanics at the job they're paid to do.

We will gladly tell you how Triblocs can be used to advantage in your shops—making more profitable the efforts of hard-to-get mechanics.



Send for Catalog 7-B

**FORD CHAIN
BLOCK COMPANY**
Second and Diamond Sts.
Philadelphia, Penna.

Selden Trucks

Selling Selden **PACEMAKERS** and **ROADMASTERS** is a profitable business because owners and drivers **WANT** them.

Seize this opportunity to increase your 1926 profits. 1926 promises to be the banner motor truck year.

6-Cylinder Speed Trucks

PACEMAKER 1½-2 Ton
ROADMASTER 2¼-3 Ton

4-Cyl. Heavy Duty Trucks

2, 2½, 3, 3½, 4 and 5-7 Tons
Capacities

Special 6-Cyl. Motorbuses

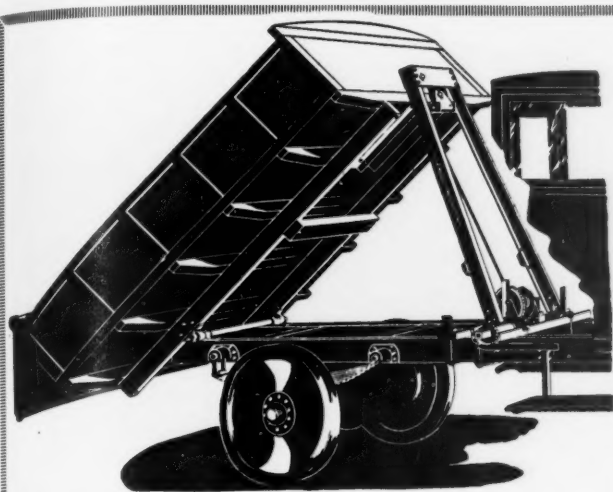
SELDEN TRUCK CORPORATION
Rochester, N. Y.



TRADE MARK

THIS MARK
identifies the highest quality thus far developed in a solid steel heat-resisting valve for the original equipment of airplanes, passenger cars, motor trucks, tractors, motorcycles and speed boats.

THE STEEL PRODUCTS COMPANY
Makers of
Thompson
Silcrome Valves



ROCK HAND HOIST

A well designed and carefully built hand hoist for motor truck dump bodies.

Cut gears are used on the winch.

Can be mounted on any width of chassis without change.

TYPE G for bodies up to 1½ ton capacity, occupies 5" to 6½" space. Price without body hinge... \$58.00

With body hinge \$65.00

TYPE K for bodies up to 5 ton capacity, occupies 7" to 8¼" space. Price without body hinge... \$75.00

With body hinge \$85.00

PRICES F. O. B. WATERLOO, N. Y.

Gov't tax to be added

ROCK MANUFACTURING CO., Waterloo, N. Y.



One by one the radical engineering features embodied in Weatherproof Truck Cabs have been accepted as standard by motor truck builders. For instance, our flexible, sliding pyralin windows have now proven themselves to the point where they are universally endorsed by leading truck engineers and distributors as against any other type of construction. In the long run, real merit wins. Send today for complete specifications and prices.

Weatherproof

Weatherproof Body Corporation

438 Shiawassee St., Corunna, Michigan

Builders of Truck Cabs, Bus Bodies, Automobile Tops, Passenger and Commercial Bodies

Costs But Little

—Works for
Nothing
—Saves You
Much



A United Air Cleaner on any truck immediately cuts down repair bills, ends carbon troubles, saves replacements, prevents truck idleness, and increases hauling efficiency.

The UNITED AIR CLEANER

—leads all in simplicity, dependability and dust exclusion. It keeps 99% of the road dust out of the motor—requires no oil, no water, no cleaning, no emptying, no attention whatever for the life of the motor. Guaranteed. 5 years' successful record. Used by more than 100 manufacturers.

WRITE FOR PRICES

United Manufacturing & Distributing Co.
9704 Cottage Grove Ave. CHICAGO, ILL.

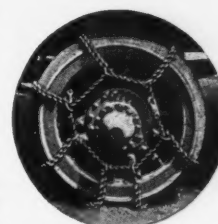
Traction through Spring MUD!

Chains as necessary in mud as on ice

Being mired in mud delays trucks as much as being stalled in snow. The loss of money through idleness is the same.

Naceskid Service Chain has the twist that gives it three times the wear of ordinary chain in mud.

Hook fastenings are dropforged, with nothing about them that can clog. All Naceskid Chain is hand



2minutes
On Off

wrought, lapped and fire welded at the ends of the links, making breakage due to crushing impossible.

The spring mud season is just starting. Dealer proposition on request.

NACESKID Service Company Chain Trenton, N. J.

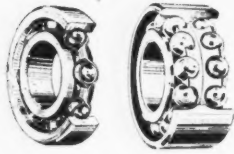
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1926 TERRITORIES STILL OPEN

Why you benefit through using Fafnir Ball Bearings for replacements



Single row radial, the standard bearing for automotive service.
Double row, carries both heavy radial and thrust loads.



Open or magnet type bearing.

This booklet is full of valuable suggestions you should observe when handling ball bearing replacements. Send for a copy.



Fafnir distributors are conveniently located in every territory—replacements are obtainable without delay.

Distributors carry a full stock of types and sizes.

The Fafnir Line is the most complete in America—there is a bearing for every job.

Fafnir Bearings are recognized for their superior endurance. This means better service from your trucks.

They are standard equipment among high grade truck manufacturers. It is to your advantage to make them standard for your replacements, also.

THE FAFNIR BEARING COMPANY

Makers of high grade ball bearings—the most complete line of types and sizes in America.

NEW BRITAIN, CONN.

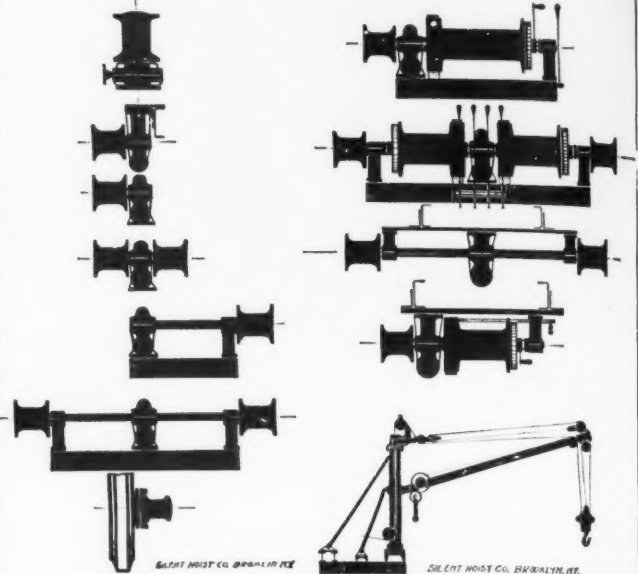
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FAFNIR

BALL BEARINGS



**Capstan Winches
Drum Winches
Single and Double Models
Cranes and Derricks
All Kinds and Types and Sizes
for Gasoline and Electric Trucks
Give Us a Chance to
Quote on Your Requirements!**



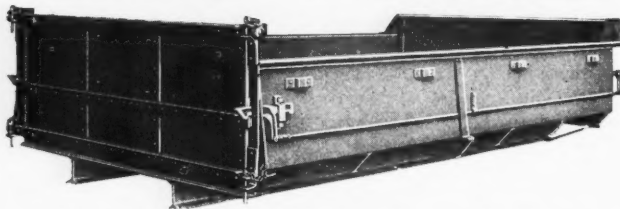
Power Winch Equipment Pays for Itself Promptly

Complete data on standard models sent on request

SILENT HOIST CO., 302 McDUGAL ST. BROOKLYN, N.Y.

Stewarts

STEEL DUMP BODIES



The construction of our Steel Bodies is unsurpassed for workmanship, practicality, rigidity and performance. Made in various models and sizes to take care of all requirements.

The Stewart Iron Works Co.

CINCINNATI, OHIO Incorporated COVINGTON, KY.

MANUFACTURERS OF
STEEL BODIES CABS
BUMPER DASHES
RADIATOR GUARDS

Earn More During 1926

- by using Electric Trucks on your short hauls on city routes.
- by using Walkers, the high quality dependable electrics.
- by standardizing on the product of an experienced, sincere and financially sound organization.

To increase your earnings three ways, write us—without obligation—about your trucking.

**WALKER
VEHICLE COMPANY**

Leading Manufacturer of Electric Street Trucks

Chicago

WALKER ELECTRIC TRUCKS

LOWEST TRUCKING COST ON CITY ROUTES



ANNOUNCING: A crescent shaped Truck Cab is now being produced by the makers of the well-known Rain or Shine Cabs.

DEALERS: You have had inquiries for this type of cab; ask for prices and deliveries.

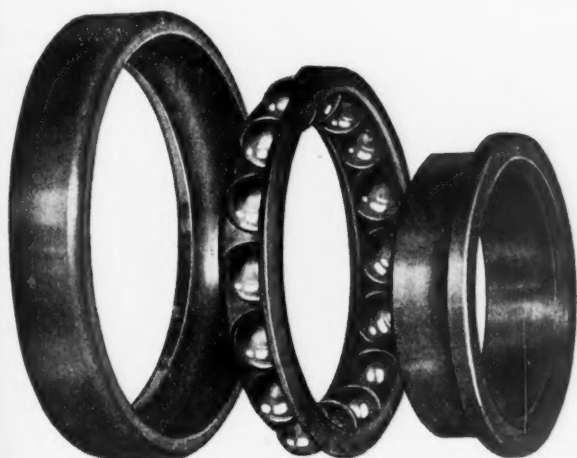
THE GENERAL WOODWORK CORPORATION
CINCINNATI, OHIO

RAIN OR SHINE CABS

*Angular Contact Radial Bearings
Angular Contact Thrust Bearings
Thrust Ball Bearings
"Star" Ball Retainers*

THE BEARINGS COMPANY OF AMERICA
Lancaster, Penna.

WESTERN SALES OFFICE
1012 Ford Bldg., Detroit, Mich.



**No Racking of
Chassis—
No Sales Resistance**

When you talk the "Saftee" to a prospect, the one big obstacle — "Racking of the Chassis" — is eliminated; in fact, the easy working, chassis saving qualities of this superior dump truck are your strong points in making a sale.

But let us tell you more about its easy selling features

SAFTEE

Ditwiler Manufacturing Co.
Galion, Ohio

DUMP BODIES

AUTOMATIC or HAND OPERATED
FOR ALL 2-TON OR LIGHTER TRUCKS

FULLER Transmissions

The value of Fuller Transmissions as a sales factor is proved beyond a doubt.

Fuller maintains a complete research department for the use of truck and bus manufacturers having unsolved—or partly solved—transmission problems.

Fuller & Sons Manufacturing Co.

Kalamazoo, Michigan

Domestic Branches:
San Francisco, Cal.
Reading, Pa.

Foreign Branch:
London, England



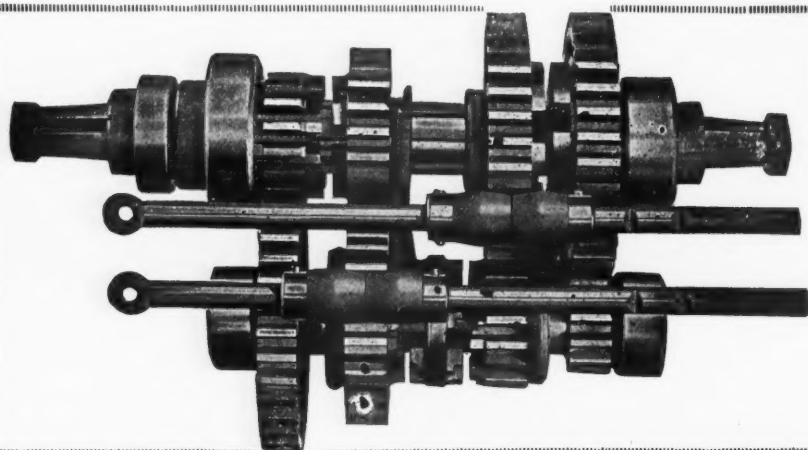


PISTON PIN BUSHINGS

Write for Price List No. 16

JOHNSON BRONZE COMPANY
NEW CASTLE, PA.

JOHNSON
STANDARD QUALITY
BUSHINGS



COTTA GEAR CO. INDIVIDUAL CLUTCH TRANSMISSIONS

FOR
3½, 5 and 7 Ton Trucks

Notice the short, compact and husky construction.

Long bearings in the loose gears.

COTTA GEAR CO., Rockford, Ill.

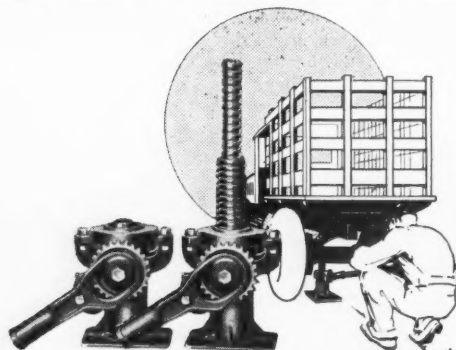
BLOOD-BROTHERS MACHINE COMPANY



ALLEGAN, MICH.

22 years of scientific and practical experience behind every recommendation.

HEAVY TRUCKS with Pneumatic Tires Take No. 12 Double Lift



There is a sturdy RELIABLE JACK for every type of car, bus and truck.

For heavy trucks with pneumatic tires, have a No. 12 Double Lift handy. Slides under low axles with ease, yet lifts 10 inches to give ample clearance for tire changing.

The double acting screws work together and assure speed. Operates easily. Any

length of handle can be inserted in jack, depending upon height of truck body.

Specifications No. 12. Weight, 17 lbs. Lift, 5 tons. Height of jack, 8" to 18". Screw Diam.: Outer, 1½"; Inner, 1¼".

Write us for prices and additional information. Whatever your need, we have a jack to meet it.

ELITE MANUFACTURING CO., ASHLAND, OHIO

RELIABLE JACKS

OVERSPEEDING and EXPENSE



Go Hand in
Hand

GOVERN THE FIRST
AND YOU
REDUCE THE SECOND

Smash-ups—damage suits—burnt out bearings—low tire mileage—big oil and gas bills—all add to truck running expenses and are primarily caused by overspeeding.

Many of America's largest fleet operators—including the U. S. Post Office—have equipped their units with K-P Governors—the one governor that regulates speed without loss of power.

Available figures show an almost immediate sharp reduction in maintenance expense.

If you are anxious to effect such a reduction in truck maintenance, drop us a postal for details.

K-P PRODUCTS CO., Inc.

60 Beaver St., New York

K-P Governor
GOVERNS WITHOUT LOSS OF POWER



Standardization!

In that one word you have the key to profits in the motor truck field.

Our new franchise, backed by 16 years' experience, does not require you to stock parts—or put your money into anything you cannot see as good business.

We have standardized our trucks; now we have put our sales franchise on the same plane. Can we say more?

Write us today for details!

The United States Motor Truck Co.

CINCINNATI, OHIO

Established
1909

Capitalization
\$1,750,000

Receivers Sale in Equity

Court of Common Pleas of Lancaster County. In equity. In the matter of Harry P. Keady and Landis B. Herr, Plaintiffs, and Rowe Stuart Motors Corporation, Defendants; and in the matter of Elias Groff, Jr., and Harry P. Keady, Plaintiffs, and the Rowe Motor Manufacturing Co., Defendants.

Desirable Manufacturing Realty, Valuable Acreage, Modern Machine Tools, 30 Trucks, The Service Business for Trucks, Supplies and Equipment of the

ROWE MOTOR MANUFACTURING CO.

and the

ROWE STUART MOTORS CORPORATION

To be Sold on the Premises

LANCASTER, PA.

Thursday, March 25, 1926, at 11 A. M.

The Sale comprises Valuable Real Estate Improved with Modern Manufacturing Buildings, also the Rowe Service and Service Rights, Service Parts, Rowe Dump Trucks, Standard Trucks (new and used), Rowe Buses, Dump Bodies, Furniture Bodies, Lumber Body Fittings, Lathes, Drill Presses, Shapers, Grinders, Band Saws, Rip Saws, Tenoning Machines, Planers, Jointers, Small Tools, Angle and Channel Iron, Scrap Steel and Iron, Office Furniture, Etc.

WM. J. NEUHAUSER, Receiver

F. Lyman Windolph, Esq., 14 S. Duke St., Lancaster Pa. Zimmerman, Meyers & Keady, Esqs., 50-52 Duke St., Lancaster, Pa., Attorneys for Receiver.

For Full Particulars, Illustrated and Descriptive Catalogue, Apply to

SAMUEL T. FREEMAN & CO., Auctioneers
1808-10 Chestnut Street Philadelphia, Pa.

Shuler Front Axles



For: TRUCKS, MOTOR BUSES, TAXIS, TRACTORS, TRAILERS

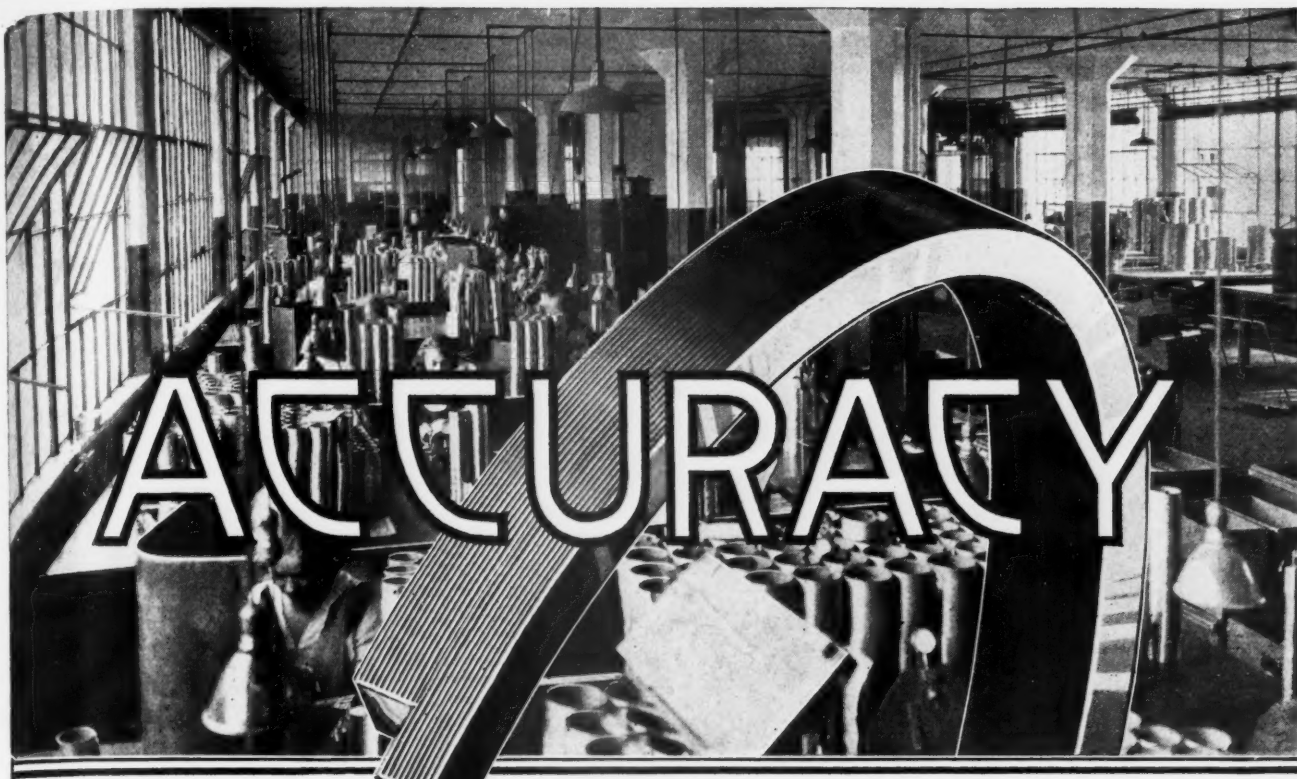
YOUR FRONT AXLE requirements are MOST important to us—because we make FRONT AXLES exclusively.

Our manufacturing facilities are set for only one program—a superior FRONT AXLE.

Shuler Axle Co.

Incorporated

Louisville, Kentucky



QUALITY Brand PISTON RINGS

All oversizes are clearly stamped in each ring, and every QUALITY Brand Ring is finished to the highest degree of practical accuracy.

The purchaser need not recheck with micrometer or gauge. The stamped trade name and oversize guarantees the ring has passed all of our various rigid inspections including a final rechecking inspection in the Department shown above.

This dependable QUALITY marking on each ring insures quick and positive identification and simplifies stock handling.

The Piston
RING COMPANY
Muskegon, Michigan